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ABSTRACT

The Information Systems Long Range Plan specifically addresses Goal four of the Texas State Board of Education's (SBOE's) "Long-Range Plan for Public School Education" dealing with efficient management and organization of the educational system. To facilitate this goal, the SBOE in 1986 approved and directed the Texas Education Agency to implement a Public Education Information Management System (PEIMS). The primary focus of the PEIMS is the development of a strategic information system capable of facilitating the information and decision support requirements of the SBOE, the agency, and local education agencies. This publication describes the PEIMS in eight detailed sections: (1) an extensive executive summary providing identification of the implemented strategies; (2) the planning assumptions and constraints; (3) the present status of the PEIMS system; (4) longe range plan strategy statement; (5) organizational and economic impact; (6) future policy implications; (7) high priority projects; and (8) automated resources utilization and economic options. Appended are 10 attachments describing computer requirements, capital requirements, support systems, disaster recovery systems, computer services, cost allocations, and a personnel skills inventory. (SI)

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ED305735

LONG RANGE PLAN FOR INFORMATION SYSTEMS

FROM THE STATE BOARD OF EDUCATION

TEXAS EDUCATION AGENCY
AUSTIN, TEXAS

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
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JANUARY 1989

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LONG RANGE PLAN
FOR INFORMATION SYSTEMS
FROM THE STATE BOARD OF EDUCATION

Texas Education Agency
Austin, Texas

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I. EXECUTIVE SUMMARY

1. Background

In the mid 1980s, the Texas Legislature mandated comprehensive and far-reaching education reforms which caused major revisions in the Texas school system, and significantly changed the scope and direction of the Texas Education Agency. The Agency subsequently has been reorganized to support the goals generated by these reforms.

In support of these legislative mandates, the State Board of Education (SBOE) has developed a Long Range Plan for Public School Education and issued the following "Mission of Public Education in Texas":

"All students need to develop essential academic skills and to acquire a knowledge base on which to build lifelong learning. All students will be taught a core curriculum of English language arts, mathematics, science, social studies, fine arts, health, physical education, and technological literacy. All students will acquire a knowledge of citizenship and economic responsibilities and an appreciation of our common American heritage including its multicultural richness. To the full extent of their individual abilities, students will be provided the opportunity to develop the ability to think logically, independently, and creatively and to communicate effectively. Educating our children to be productive in a changing future necessitates an excellent educational system. A system that can accomplish this mission must be characterized by quality, equity, and accountability."

Although the last few years have seen a significant improvement in student performance, additional progress must be made in the years ahead if the basic goals and objectives of the State Board of Education (SBOE) Long-Range Plan for Public School Education are to be achieved.

This Information Systems Long Range Plan specifically addresses Goal 4 of the (SBOE) Long-Range Plan for Public School Education, which specifies that "The organization and management of all levels of the educational system will be productive, efficient, and accountable."

To facilitate this goal, the (SBOE) in 1986 approved and directed the Texas Education Agency to implement a Public Education Information Management System (PEIMS). Funding for the implementation of this program was approved by the Texas

Legislature in 1987. The primary focus of the (PEIMS) effort is the development of a strategic information systems capability to facilitate the information and decision support requirements of the (SBOE), the Agency and Local Education Agencies (LEA's).

Under the overall direction of the Deputy Commissioner for Research and Information, the Agency Office of Information Systems and (PEIMS) development division are coordinating their efforts to install an Agency-wide information systems capability to support the legislative mandates and priorities of the (SBOE). This revised plan calls for a dramatic change in and expansion of the current Agency automated environment to support and effectively utilize a centralized public education information system for the state of Texas. The use of modern information systems and technology will be integrated into the daily operations of virtually every component of the Agency to obtain necessary operating goals. The Agency considers achievement of this plan essential to attain the goals of the (SBOE) Long-Range Plan for Public School Education.

2. Agency Information Systems Strategy

This plan places emphasis, during the period 1988 - 1993, on installation of a strategic information systems capability which will support (SBOE) priorities and provide a mechanism for more effective and efficient Agency operations.

The developmental path that this plan proposes will dramatically alter the Agency automated environment that currently relies on a small group of highly trained personnel to support Agency functions through independent, rigid reporting systems and traditional centralized batch processing. This plan places major emphasis and corresponding resources on the following:

- Full implementation of the comprehensive (PEIMS) data base.
- The development and state-wide distribution of (PEIMS) data and data products.
- Improvements in the efficiency and effectiveness of Agency operations through:
  - The development, integration and use Agency-wide of end user controlled decision support (data analysis and reporting) systems.
  - The development of improved Agency operational methods through use of automated support systems integrated into core activities.

- The integration into Agency daily use of telecommunications tools such as TEA/NET for electronic mail and voice/video networks for statewide education support.

Effective Agency-wide utilization of the centralized (PEIMS) data base and associated automated systems capabilities will be achieved through a balanced use of the Agency mainframe computer and personal computers. Information will be shared by linking mainframe and personal computer users through an internal telecommunications network.

3. Major Information Systems Activities Identified in this Plan

The development activities of this plan address the need to establish an effective and efficient information systems environment to service both decision support and operational requirements. The system through which public education information will be captured and utilized by the Agency is diagramed in Exhibit I-1. Referring to this Exhibit, the primary source for Agency data is the PEIMS data delivery system originating at the local school district level. This data is transferred through the education service center based delivery system to the Agency mainframe computer where it is stored in the PEIMS "data base". Access to this information is provided through standard data products, general purpose "official" data views and specific "private" data views. User friendly tools are used for data analysis and reporting. The data base also supports data specific to Agency application systems.

Planned major elements of the improved information systems capability are summarized below.

Public Information Management System (PEIMS) Data Base

The Texas Legislature in H.B. 72 mandated greater accountability for performance and effective results in Texas' system of public education and explicitly directed that performance and results of the system be measured, evaluated, and publicly reported.

The Texas Education Agency's capabilities to obtain and manipulate information to support such measurement and assessment are currently limited but under improvement as part of the (PEIMS) system development program. This system includes development of a centralized database containing primary (elemental or nonaggregated) data collected from or about local education agencies (LEA's) in Texas. Such decision making relies on review, aggregation, and analysis of primary data in the following major subject areas:

- Student data
- Curriculum data
- Staff data
- Facilities data
- Financial data
- General district data
- Education Service Center data

Agency functions supported include:

- Educational quality
- Curriculum and program development
- Finance and compliance
- Research and information

In February of 1988, the original implementation plan for establishing the (PEIMS) data base was modified. The changes were based on the recognition by the State Board of Education in June 1986 that "These data standards may be defined in stages to facilitate successful implementation of PEIMS." The modifications range from specific changes designed to reduce the reporting burden of personnel data to a phased implementation schedule for other PEIMS data over the next five years. A summary schedule of this activity is contained in Exhibit I-2. According to this schedule, the system will collect information in six categories and will gradually be implemented over five years from 1988-89 to 1992-93.

Each type of data added to PEIMS will be pilot tested one year prior to its scheduled implementation. It is intended that student data standards specifications be coordinated with systems currently being used in districts, such as the academic achievement record, the attendance accounting system, the Special Education Management System (SEMS), and demographic information from Texas Educational Assessment of Minimum Skills (TEAMS).

The general student-level data collection will be implemented gradually over a period of four years. All the fundamental aspects contained in the ongoing design of PEIMS should be fully operational at the end of five years; however the statewide system will continue to be responsive to changes in educational needs and to issues and concerns raised by school districts (LEA's), education service centers (ESC's), and other users of the system.

The Vocational Education - Funding and Compliance subsystem of PEIMS is currently under development and should be completed some time in 1988. This subsystem will allow compliance personnel to gather vital information from the PEIMS system prior to a monitoring visit increasing cost savings through reduced travel,

as well as the benefit of targeting potential problems prior to an on-site visit.

Decision Support Systems

One primary objective of this plan is establishment of a technical environment providing Agency-wide access to and utilization of automated information for decision support purposes. To provide this environment, a technically compatible and integrated combination of data management and access/analysis tools (software systems) have or will be procured and installed on the Agency mainframe computer.

Those decision support tools installed to date are:

- IBM Database System "DB2"
- IBM Query Management Facility (QMF)
- SAS Statistical Analysis System
- IDEAL program generator system

Primary capabilities provided by these tools, in a user controlled, ease of use environment are as follows:

- Data Management and Access - The new IBM relational database system DB2 provides global, flexible access to and management of the increasing volume of data contained in the (PEIMS) data base and other operational data files. System features include menu-driven interface, use of non-procedural language and file building capabilities.

- Data Query and Reporting - The currently installed SAS Statistical Analysis System and newly acquired IBM Query Management Facility (QMF) provide on-screen report design capabilities, report writer languages, calculation routines, and help facilities for ad hoc and full feature data analysis and reporting.

- Modeling Tools - The SAS Statistical Analysis System provides financial/statistical routines and spreadsheet features to build data analysis models.

- Business Graphics - Both the SAS and QMF systems provide bar chart, pie chart, line chart, x/y graph and scatter graph generation capabilities.

- Operational Support - The IDEAL system allows application development to progress with greater economy and efficiency, allowing programmers to more effectively design and develop operation and decisions support systems.

These systems provide a flexible data base management capability, convenient access to data and responsive, ease of use features for use in analysis and reporting. A primary benefit of these systems are the ease of use features which will permit expansion of technology use to the wide range of the Agency user community from Managers, sophisticated users, public information users... to the most basic novice. The Agency plans to provide this environment through utilization of both mainframe and PC based systems linked by the IBM "token ring" network. Agency personnel will have the flexibility, through enhanced communication capabilities, to access and process data held in the central Agency data base or to extract and "download" information from the "data base" for use in their personal workstation.

Use of these decision support tools and standard information products will be introduced to the Agency user community in incremental steps. A tentative implementation schedule is identified below:

- Initial training of selected user "core groups" in the 1988 time frame.
- A comprehensive Agency-wide analysis of functional applications for these decision support tools in the 1988-89 time frame.
- A subsequent implementation plan developed to include necessary computer hardware and training to support the use of available decision support tools in the 1989-91 time frame.
- Incremental expansion of these decision support tools as funding allows in the 1989-1991 time frame and beyond.

The Agency is in the process of and plans to continue development of decision support tools in the form of standard information products to facilitate internal and external use of (PEIMS) and other data. A summary listing of initial information products under development and planned is contained in Exhibit I-3.

Operational Support Systems

Operational support systems are those which aid management in the execution of standard, recurring Agency functions. An ongoing comprehensive review of the Agency's operational support systems has indicated that many new systems are needed and current systems must be redeveloped, converted to the planned new technology or replaced. This review also led to the identification of the following four major systems as first priority projects with a fifth system currently developing an operational plan for development:

- State Textbook Distribution and Accounting System
- State Certification System
- Agency Investments System
- Financial Management System
- Fund Flow System (Standard Application System)

The remaining operational support systems are being similarly scheduled and will be redeveloped, converted or replaced as the next planning cycle begins. These major systems are the following:

- Foundation School Program Funding System
- Payroll/Personnel System
- Depository Contract System
- Federal Funding Program System
- Transportation System
- National School Lunch System
- School Visit System
- Vocational Federal Allocations System

State Textbook Distribution and Accounting System

Agency automated support for this function does not address the high transaction volume and accountability requirements of the system. Current Agency automated support for textbook management is limited to an antiquated batch system which is unresponsive to Agency needs, unreliable and difficult to maintain. Agency efforts to maintain this system involve increasing cost prohibitive expenditures.

Development of an on-line system providing the features and controls required to support this textbook function was undertaken in September of 1987 and implementation is expected to be completed by the end of 1989.

State Certification System

Current automated support for this function is limited to the generation of certificates and permits. It does not address processing support for the high transaction volume incurred by the operation or the need for rapid access to application status information. Development of a new on-line system addressing these needs is scheduled for installation in 1988. An evaluation of the impact of recent legislation on the certification process is to be performed by early 1988. As a result of this new legislation, it is expected that significant additional systems development will be required in the 1988-1990 time frame.

Agency Investments System

An on-line financial securities control, analysis and reporting system (OSCARS) is presently used to support the securities management and accounting operations of Investments. This is a proprietary software package which offers a limited capacity to accommodate significant anticipated changes to the investments program. An evaluation of system options to meet projected needs is to be performed in 1988 with necessary development currently planned for the 1990-91 time frame.

Financial Management System

Automated support to the fund accounting, fiscal grants management and budgetary control function of the agency is currently provided by a single system which lacks the necessary scope and flexibility to meet agency needs. A comprehensive review of the financial management process by the Agency, to include data required from school districts and the methods of receipt, is to be initiated in 1990. Requirements resulting from this study will form the basis for installation of systems and procedures effectively integrating and supporting the overall financial management function of the Agency. This work is planned for the 1990-91 time frame.

Standard Application System

The standard application system is currently conducting a study for the development of an operational plan projected for completion in 1989 with development of this system to begin as funding and scheduling permits.

4. Personal Computers and the Local Area Network.

To support the SBOE priority of operating at the state level with greater effectiveness and efficiency, a primary element of this plan is the effective, Agency-wide use of personal computers. Personal computers will continue to be procured and integrated into the operation of the Agency. These procurements will address all areas of the Agency as priorities and funding allow. Personal computers will be linked together and to the mainframe utilizing the IBM "token ring" network which is presently installed at the Agency. Networking of personal computers will facilitate the capability to obtain data from the (PEIMS) "data base" and help to eliminate the current paper intensive environment.

Personal computers will serve as terminals for use with mainframe systems as well as independent processing units. Primary systems processed on personal computers will include data analysis and reporting, graphics and word processing.

To promote and support greater operational effectiveness and efficiency, the Agency will continue to provide computer training classes to the growing user community. The Information Center of the Information Systems Office will be the primary control point for training.

The Agency currently has installed approximately 200 personal computers of which 67 are connected to the internal IBM "token ring" telecommunications network.

Planned procurements of personal computers and associated software are summarized in Attachment 1 of this plan.

Attachment 3 provides a summary of the total capital requirements for procurement of personal computer equipment over the life of this plan.

5. Continued Enhancement of the TEA/NET

The Agency will continue to sponsor, support and promote the use of an electronic mail system as a more efficient means of communication between the Agency, LEA's and ESC's. This system has been developed by National Information Systems, Inc. in conjunction with Agency staff, and is currently in limited use (future expansion and use of any proprietary electronic mail system will undergo the competative bidding process).

6. Continued Upgrade of Mainframe Hardware and Software

To support (PEIMS) as a "single authoritative data source" in addition to other Agency mainframe automated applications, the processing requirements of the activities listed in this plan necessitate a technical architecture oriented around a central mainframe computer. The major functions of this central computer will be to store (PEIMS) and primary Agency data, efficiently support data access/analysis/reporting, host the data telecommunications capability and process the large operational support and decision support systems of the Agency.

The Agency mainframe computer architecture, based on the IBM standard, is already in place, however, the need for increased computer operating capacity to support this plan points to an eventual mainframe upgrade as a primary requirement if the Agency is to support (PEIMS) as well as active planned operational improvements and efficiencies.

To support this plan, progressive upgrades to operating software and processing capabilities will be installed on the existing mainframe computer as required. The current IBM 4381 will be upgraded to the most cost effective level. The Agency operating budget for 1988-89 provides for an 8 megabyte (MB) internal memory upgrade at an approximate cost of $40,000. Processing capacity projections reveal that this processor cannot adequately support Agency processing requirements beyond fiscal year 1989. Based on the analysis outlined in Section 8 of this plan, the procurement of an IBM or IBM compatible 3090-180E level mainframe has been proposed in the FY 1990 budget request. The cost for this new mainframe will be approximately $2.25 million.

Attachment 2 of this plan provides a summary of the capital requirements for hardware and associated software procurements over the life of this plan.

Attachment 3 provides summary totals for the capital requirements for procurement of mainframe hardware and software in support of this plan.

7. Study for an External (data) Telecommunications System

The Agency does not have and will not be ready during the 1989-1992 time frame to develop a statewide data telecommunications link or network with local school districts, service centers, or other entities. A study will be performed by the Agency beginning in fiscal years 1992-93 to determine external access requirements, and if appropriate, external access will be provided during the 1993 time frame. Until this study is complete, funding for an external telecommunications system cannot be accurately estimated.

8. Research of Comprehensive "English Language" Data Analysis and Reporting Systems.

During the course of this planning cycle, research will continue to seek a system that will support a full range of users performing simple as well as complex data analysis, create a variety of automated reports and support development of complex mainframe support systems. The benefits of such a system would be to primarily provide a powerful response to the different needs of all information functions of the Agency through the improved efficiency of a single technology.

9. Unresolved Issues that might affect this plan

The pending appeal of Edgewood ISD v. Kirby could affect the development activities described herein through mandated changes in the manner in which this Agency supports public education in the state of Texas. Such changes could correspondingly change the direction and scope of Agency Information Systems support, and, this long range plan.

PUBLIC EDUCATION INFORMATION MANAGEMENT SYSTEM (PEIMS)

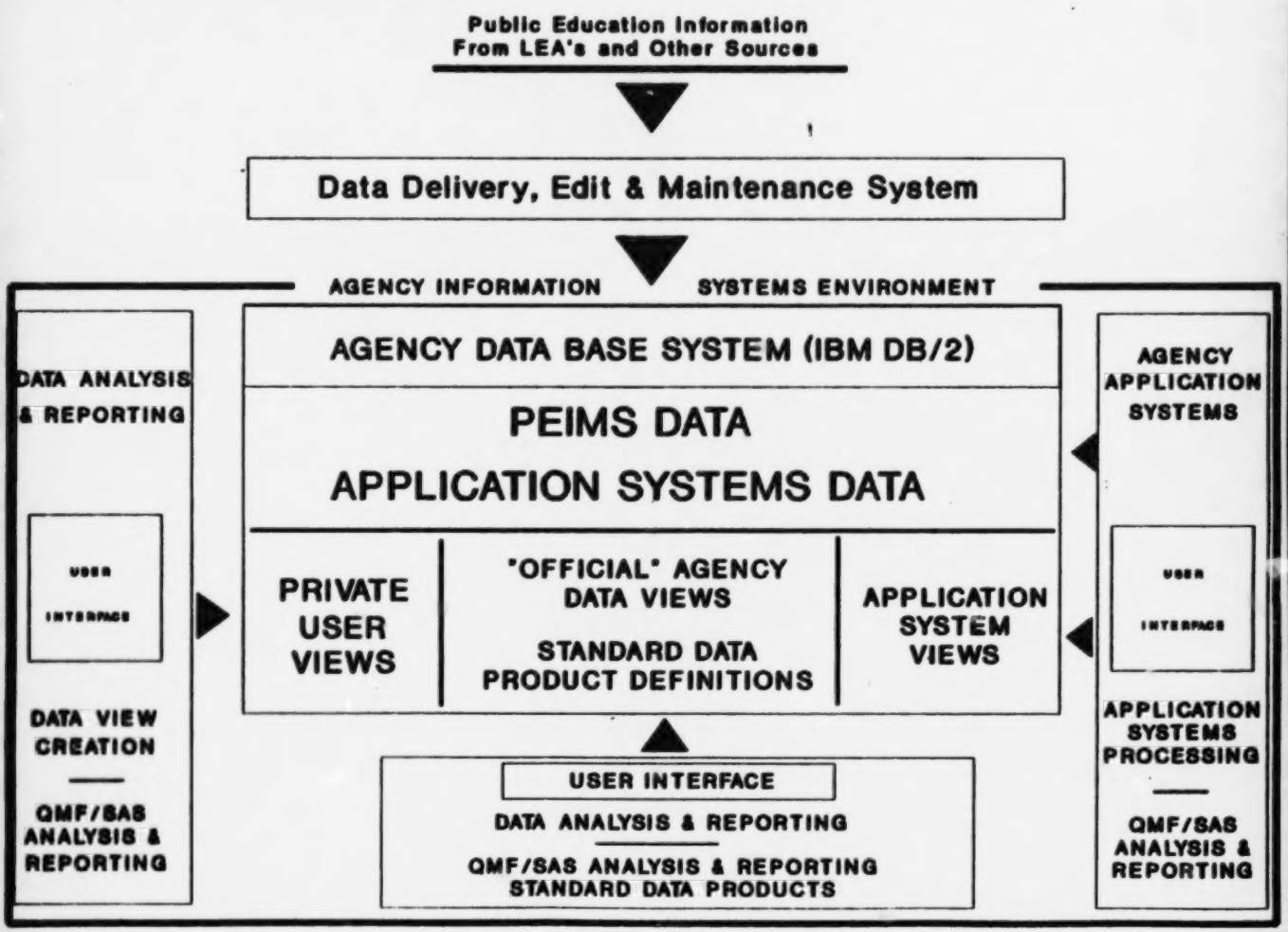


Exhibit I-2

PEIMS PLANNED DATA COLLECTION AND DELIVERY SCHEDULE
1988-89 THROUGH 1992-93

Estimated Figure	1988-89	1989-90	1990-91	1991-92	1992-93
Number of records from districts	8 million	15 million	25 million	50 million	Not
Number of data elements planned	70	140	175	200	Yet
Number of unique record data types	10	15	18	24	Projected
Number of records returned as statewide data files	75	200	375	650	---

Exhibit I-2

PEIMS PLANNED DATA COLLECTION AND DELIVERY SCHEDULE
1988-89 THROUGH 1992-93

	1988-89	1989-90	1990-91	1991-92	1992-93
Implement: All districts	. Partial dropout data . Actual financial data . Some new organizational data . Changes to staff data	. Student demographic data . Student program data . Full dropout data . State assigned student ID	. ADA . Student course schedules (grades 9-12)	. Student achievement test data . Student/ teacher link . Student course schedules (elementary & middle)	. Facilities data
Pilot Voluntary	. Student demographic data . Student program data - special education - gifted and talented - Chapter I - other programs . Full dropout data	. ADA . Student course schedules (grades 9-12)	. Student achievement test data . Student teacher link . Student course schedules (elementary and middle)	. Facilities data	---

Exhibit I-3

SUMMARY OF INITIAL DECISION SUPPORT PRODUCTS CURRENTLY UNDER DEVELOPMENT AND PLANNED FOR INCREMENTAL IMPLEMENTATION

"Core" Information Development	Scheduled Information Product Delivery					
	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93
I. A comprehensive core information "data base" covering public education encompassing data from local districts and other sources with emphasis on personnel and budget information	. Summary views of personnel and budget data	. Added product reporting information on dropouts and actual financial figures	. Complete dropout information and contact hours and student schedules for Grades 9-12	. Add student test scores . Student schedules for all grades. . Student teachers linkage	. Facilities	Not Yet Projected
II. Development of data files to provide "views" of the core information "data base" to serve the majority of decision support queries, with emphasis remaining on personnel and budget information	. Detailed views of personnel and budget data	. Add additional information on dropouts and actual financial figures	- - -			-
III. Development of specific product files that are transportable via magnetic media to school districts and others	. Data files applicable to AFR Part II, in addition to printed reports . Data files with profile information of each district and campus that provides a broad overview of educational statistics	. Detailed data views of student demographic and special program participation . Provide comprehensive view of actual financial information . Summary view of student demographics and student special program participation	- - -			
IV. Development of a statewide system for uniquely identifying all students	- - -	. Pilot test	. Implement for student data	Continue	Continue	
V. Development of an end-user's access system that simplifies user access to information and specific information products	- - -	- - -	. Researched and designed	. Protype built	. System developed	

II. PLANNING ASSUMPTIONS

1. Background

The following assumptions and constraints provide a foundation for the development and continued monitoring of the Automated Information and Telecommunications Systems Long-Range Plan. These are a synthesis of desires and concerns expressed by the following:

- The State Board of Education (SBOE) which is the primary governing body of the Agency.
- Personnel with the Texas Education Agency to encompass senior and middle management, professional analysts and departmental automation users.
- The Information Systems Advisory Committee (ISAC) to the Commissioner of Education which is comprised of representatives of local school districts, education service centers and private vendors of automated technology.

2. Assumptions

Primary assumptions which were considered to form the basis of this plan are as follows:

- The Texas education reform movement which began in 1984 will remain in effect. The mandates for public education contained in HB 72 are assumed to prevail in future legislative direction.
- Future legislation will not erode the support base necessary to accomplish the objectives of the (SBOE) and this plan.
- The primary goals and objectives reflected in the (SBOE) Long-Range Plan for Public School Education, which are supported by this plan, will not materially change.
- The major objectives of this plan will directly support the (SBOE) Long-Range Plan for Public School Education as well as the Agency Operational Plan. These plans have essentially one basic goal: To provide the best possible education for the children of Texas. To this end, the emphasis of the Agency and this plan is on those activities that support the State's ability to assist local school districts in providing a sound education.

- Adequate levels of funding will be provided for the period FY 1989 - 1993 to provide resources necessary for the completion of this plan.

- Information is the primary shareable resource of the Agency. Automation is the most timely, efficient and useful means to provide access to information within and outside of the Agency.

- The Agency's role in statewide information systems planning will continue to focus on standards for which the Agency is charged (PEIMS, Teacher Certification, and other) and to provide a forum for the exchange and discussion of information systems technologies and ideas. The Agency will propose a consortium or association be developed for the purpose of sharing use of information systems technology with and between local school districts (LEA's). The central goal is to attain considerable involvement by local district staff.

- The role of education service centers will continue to be a conduit for input of (PEIMS) data to the Agency and a provider of training to school districts. Service centers will also continue to provide data services to school districts but will share these roles with private vendors and universities.

- To ensure effective access to (PEIMS) and other automated Agency data by local school districts, the Agency will initially develop and maintain a series of standard data products. During this plan period the Agency will also undertake a study to determine if a more preferred method is required for making this information available and if so, what this method would be (e.g; state-wide data telecommunications system, etc.)

- To support this plan, a program for progressive enhancement of the automated processing capabilities (computer hardware, software, technical training, etc.) of the Agency will be followed.

- The integration of information systems technology and use of the (PEIMS) system will continue to grow within the Agency over the life of this plan. Use of networked personal computers for mainframe access and downloading of data for subsequent local division processing using modern data analysis/reporting tools will be primary to this process.

- Agency use of office automation will continue to grow over the life of this plan.

- Agency personnel will be kept technically competent through an ongoing comprehensive training program.

- The Agency intends to utilize and sponsor use of the current TEA/NET service as a statewide alternative to mail.

- The Agency will continue to utilize the current STS voice communications system. The Agency does not have plans during the 1989-1992 time frame to enhance the current voice telecommunications capabilities.

3. Constraints

Constraints which were considered to influence objectives and the direction of this plan are as follows:

- Agency staff levels are assumed to remain relatively constant over the life of this plan. The effective use of automation is to be utilized wherever possible to obtain operating efficiency.

- Mainframe computer hardware utilization requirements may exceed the maximum processing capacity of the current Agency mainframe computer before this plan is complete.

- Local school districts (LEA's) have varied capabilities for collecting, processing and transmitting data.

- The Agency does not have and will not be ready during the 1989-1992 time frame to develop a statewide data telecommunications link or network with local school districts, service centers, or other entities. A study will be performed by the Agency beginning in fiscal years 1992-93 to determine external access requirements, and if appropriate, external access will be initiated some time in the year 1993. Until this study is complete, funding for an external telecommunications system cannot be accurately estimated.

- The Agency will continue to retain the most qualified technical professionals available to support this plan but with the rapid advance of technology and market conditions, it will be increasingly difficult if the current state salary structure is maintained.

III. PRESENT STATUS

1. Background Information

1.1 With the passage of House Bill 72, enacted during the second called session of the 68th Texas Legislature, the scope and direction of the Texas Education Agency (TEA) was dramatically changed. To support the mandates of HB 72, it was necessary for the Agency to procure and install a mainframe computer capability. The selection of this automation equipment was based on Agency information systems support requirements in place at that time which utilized IBM technology as the baseline automation architecture. These requirements could not and did not fully reflect or anticipate the magnitude of Agency redirection resulting from the adoption of House Bill 72.

1.2 To assure the state-wide level of accountability mandated by HB 72 it became increasingly apparent that the Agency would require improved automated information systems and effective access to sufficient and accurate data from and about local school districts. This realization identified the need for a more efficient and effective means of storing, securing, accessing and utilizing this growing "data base" of information. As a result, a new division was created within the Agency under the direction of the Deputy Commissioner for Research and Information and charged with the continuing development and implementation of a Public Education Information Management System (PEIMS). In conjunction with the consulting firm of Coopers & Lybrand, an operational plan for development of the PEIMS system was developed and approved by the State Board of Education and the Texas Legislature.

1.3 Development and installation of the (PEIMS) system is now underway. To date, this effort has yielded the following:

- With the support of consulting technical expertise and the addition of experienced staff, the PEIMS project has accomplished more than would be normally expected for a project of this magnitude. During 1987-88, data standards for school budget and personnel data were established and this information was collected state-wide. This was accomplished in spite of the complexities, increased demands, and unforeseen difficulties which are present in the initial year of a major systems development effort.

- Consulting support was also used in the development of the PEIMS coordinator function located at twenty regional education service centers (ESC's) throughout Texas. Training was provided in the content of the PEIMS data standards and data delivery instructions required for the first year of data submission.

- Currently, Coopers and Lybrand is assisting the Agency in the development of a Vocational Education component of PEIMS for Agency use during 1988 and beyond. Benefits to be derived will be in the form of vocational education products designed to facilitate desk review and federal reporting.

The development of these products has been accomplished through a technical approach involving an interactive design process and a functional prototype. This approach allows users to test the product as it is being developed, assuring the flexibility and job-specific value of the system during and after its initial implementation.

1.4 The Agency commitment to the PEIMS effort and the development of improved operational support systems has resulted in a significantly expanded role for Agency-wide information systems use. Automated systems are now required which serve both state level (MACRO) and district level (MICRO) needs through the same fundamental Information Systems structure.

2. Current Information Systems Technical Environment

2.1 The technical environment necessary to support PEIMS and other Agency operational requirements is currently comprised of a central mainframe computer facility serving as a "single authoritative source" for educational data within the state of Texas, providing responsive information access, analysis and reporting capabilities and handling transfer/communication of this information. The current mainframe is an IBM 4381 Model Q14 with 24 megabytes (MB) of internal memory and a thruput processing rate of 5.3 millions of instructions per second (MIPS).

Exhibit III-1 provides a schematic of the current mainframe computer configuration.

Attachment 4 provides a comprehensive inventory of all hardware and software procurements in support of this configuration.

2.3 In support of the SBOE goal to provide greater effectiveness and efficiency at the state level, a major component of this Plan addresses placing automated tools and access to the automated PEIMS "data base" in the hands of Agency users. This is being accomplished by the procurement of mainframe data access/analysis software systems and personal computers. This activity will continue throughout the life of this Plan and beyond, as justified. Personal computers are installed in stand-alone mode or are linked to the Agency's internal telecommunications network as required to facilitate increased distributed processing capabilities.

Attachment 5 contains an inventory of personal computer equipment in use by the Agency.

2.4 To more effectively manage the growing base of educational information, and the structure described above, the Agency will make extensive use of integrated data base management and "fourth generation" data analysis/reporting software systems to permit flexible, high volume interrogation and analysis of automated information by our wide range of users with varying technical skills. The following decision support software systems have been installed on the Agency mainframe to provide these capabilities:

- IBM Database System "DB2"
- IBM Query Management Facility (QMF)
- SAS Statistical Analysis System

3. Assessment of Current Operational Systems

3.1 The Agency has historically maintained a centralized batch processing automation environment to process operational support systems developed primarily "in-house". Most of these automated operational support systems no longer meet processing requirements as a result of the Agency's redirection and cannot be adequately upgraded due to design limitations. Accordingly, virtually all have been targeted for redevelopment.

Attachment 6 describes the Agency's operational support systems and describes, by system, the benefits received and future development plans.

4. Organization

4.1 The Commissioner of Education, who as part of his responsibilities has the managerial oversight authority for Agency technical support areas, exercises these responsibilities through the Deputy Commissioner for Research and Information. The Agency technical support organizational structure is described in Exhibit III-2.

The PEIMS division, the division of Resource Planning, and the Office of Information Systems comprise the primary technical support capabilities within the Agency. The organizational structure of these divisions are designed to support the SBOE goal of operational effectiveness and efficiency.

4.2 PEIMS Division

The principle responsibility of the PEIMS development division is to implement PEIMS per the operational plan approved by the SBOE on June 12, 1986. The major functions of this division are as follows:

Project Administration

The responsibilities of Project Administration are to direct the PEIMS systems design effort, schedule and manage PEIMS project work, administer consultant contracts, and manage the division's office administration.

Software Support

This function has the responsibility for the design and development of systems that deliver, edit, load, and maintain the standard data that is drawn from local school districts and other sources. Designs and develops systems that support the user interface to the "single authoritative source data base" which includes the use of proprietary software, building of information products and the continuous improvement of user-access systems.

ESC Support

The responsibilities of ESC Support are to assist the ESCs on matters concerning PEIMS data, collection, edit, correction and delivery; provide support to and direct the ESC PEIMS coordinator, evaluate and review ESC workplans; coordinate with the TEA-ESC Division, and monitor all activities that relate to ESC's role in PEIMS.

Information Planning

This function provides Agency-wide support for determining the information needs of Agency users, performs analysis of Agency data usages, specifies and publishes data requirements in terms of established data standards and has the responsibility for designing and developing standard user data base views as well as information applications and standard information products.

4.3 Division of Resource Planning (which reports directly to the Assistant Commissioner for Policy Coordination)

Performing analysis of and projecting the resources (financial, capital, human) required to provide educational services within the state of Texas is the primary support function of this division. The division currently maintains a number of automated analytical tools for use in providing information and supporting the following activities:

- Project foundation school program state aid for each district by program. This information is used to support budget requests and analyze the impact of legislation.

- Forecast student enrollment and average daily attendance data.

- Maintain professional personnel information for general analytical use throughout the agency and national groups.

- Perform statistical analysis of personnel, financial and demographic information utilizing price differential index regression models and other analytical routines.

4.4 The Office of Information Systems is directed by the Assistant Commissioner for Information Systems and consists of the following divisions:

Office of the Assistant Commission for Information Systems:

This office conducts Agency-wide data processing planning; interfaces and consults on education technology; directs Agency electronic communications systems; ensures adequate data protection on the Agency computer system; and provides planning, administration and budgeting services for the divisions of Reports Management, Software Support, Mainframe Applications Systems, Computer Operations, and the Information Center.

Reports Management Division:

The Division of Reports Management provides Agency-wide coordination of government reporting. This coordination involves both the reporting of data to the Agency by districts and the reporting by the Agency to state and federal entities. The division consists of two sections: records processing and governmental reporting.

Software Support Division:

The Software Support Division evaluates and recommends computer operating software to support Agency Information Systems goals; installs, maintains and tunes for optimum performance Agency computer operating, telecommunications and applications systems software.

Mainframe Applications Systems

The Mainframe Applications Systems Division develops (designs, programs, documents), evaluates (pre-programmed "package" applications systems), installs and maintains automated applications systems on the Agency computer facilities for use by

Agency divisions; and provides professional data processing consultant services to Agency staff and school districts.

Computer Operations

The Computer Operations Division provides scheduling and operation of the Agency's mainframe computer systems and facilities, provides key entry services supporting Agency programs, installs and maintains Agency computer hardware, performs computer hardware evaluation and computer facilities planning.

Information Center

The Information Center Division provides data base management, technical training and personal computer applications development support for users of Agency automation equipment. The division consists of three sections: training, data base support, and PC applications development.

5. Telecommunications Status

5.1 TEA/NET

TEA/NET is an "electronic mail" network which is currently used on a limited basis by local school districts, service centers, and the state. Campuses access a district host through a local telephone call; district hosts send to and receive electronic mail from the agency through a night call. The system allows exchange of mail, posting of announcements, and conferencing for administrative and instructional uses. While use of this electronic mail system is currently limited, the Agency is supporting and planning for full state-wide utilization of this system over the life of this plan.

5.2 STS Telecommunications Network

The Agency will continue to utilize the state sponsored STS telecommunications network as required by statute for those Agencies housed within the Capital Complex.

5.3 Audio-video telecommunications

The Agency has a growing need to use a variety of media to communicate with education service centers and local school districts. The Agency has used the satellite TI-IN for two hours a week recently with growing success. Future expansion of the Agency telecommunication capabilities will undergo the competative bidding process if proprietary systems are considered.

5.4 IBM Token Ring Network

The Agency currently has installed the IBM token ring network that has allowed personal computers to be linked with each other and to the mainframe computer system.

Exhibit III-3 diagrams the current token ring configuration within the Agency.

EXHIBIT III-1
AUTOMATED RESOURCES CONFIGURATION

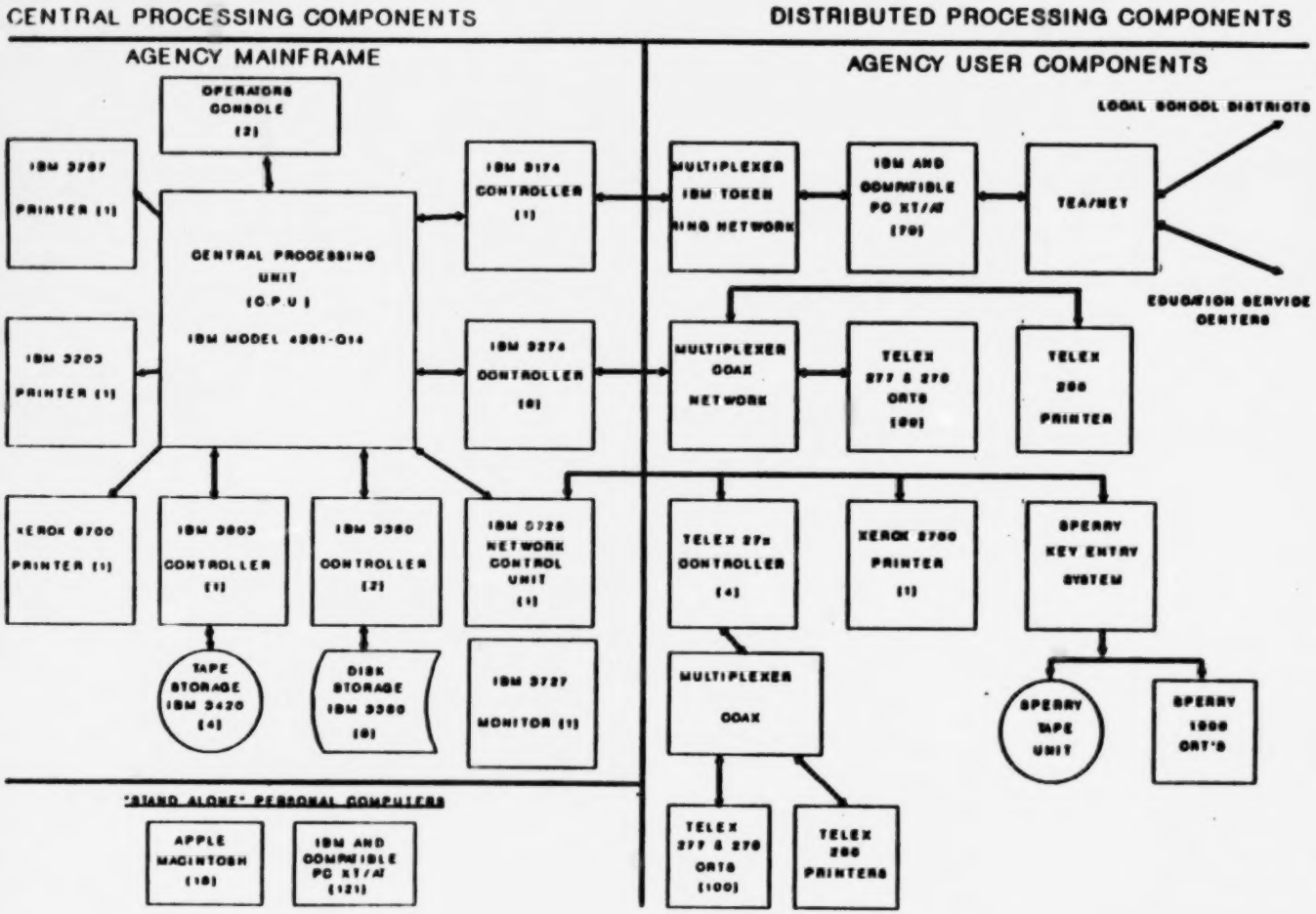


EXHIBIT III-2

ORGANIZATION CHART
OFFICE OF INFORMATION SYSTEMS
POLICY COORDINATION AND PEIMS

August 1988

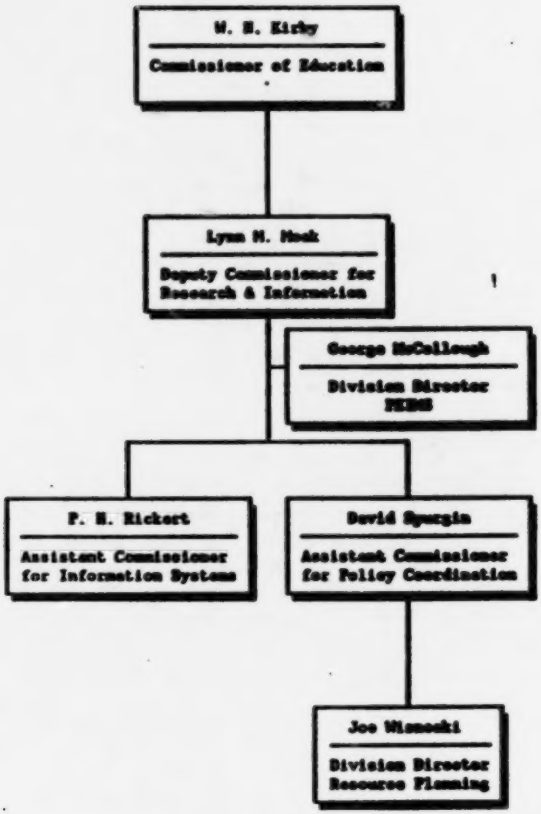


EXHIBIT III-2
ORGANIZATION CHART
PEIMS DIVISION

August 1988

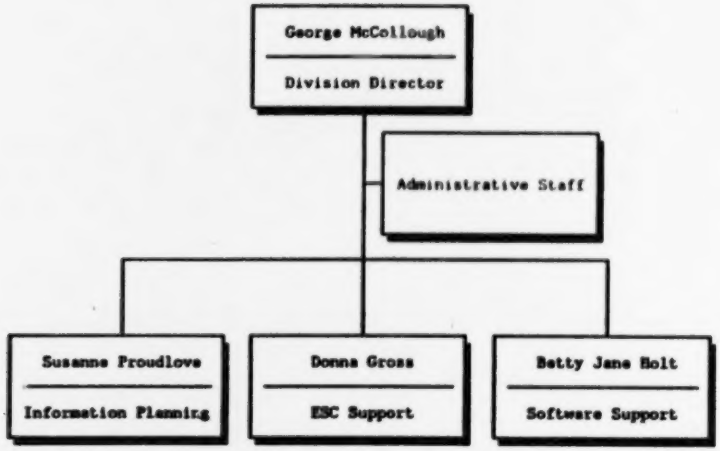


EXHIBIT III-2

ORGANIZATION CHART

DIVISION OF RESOURCE PLANNING

August 1988

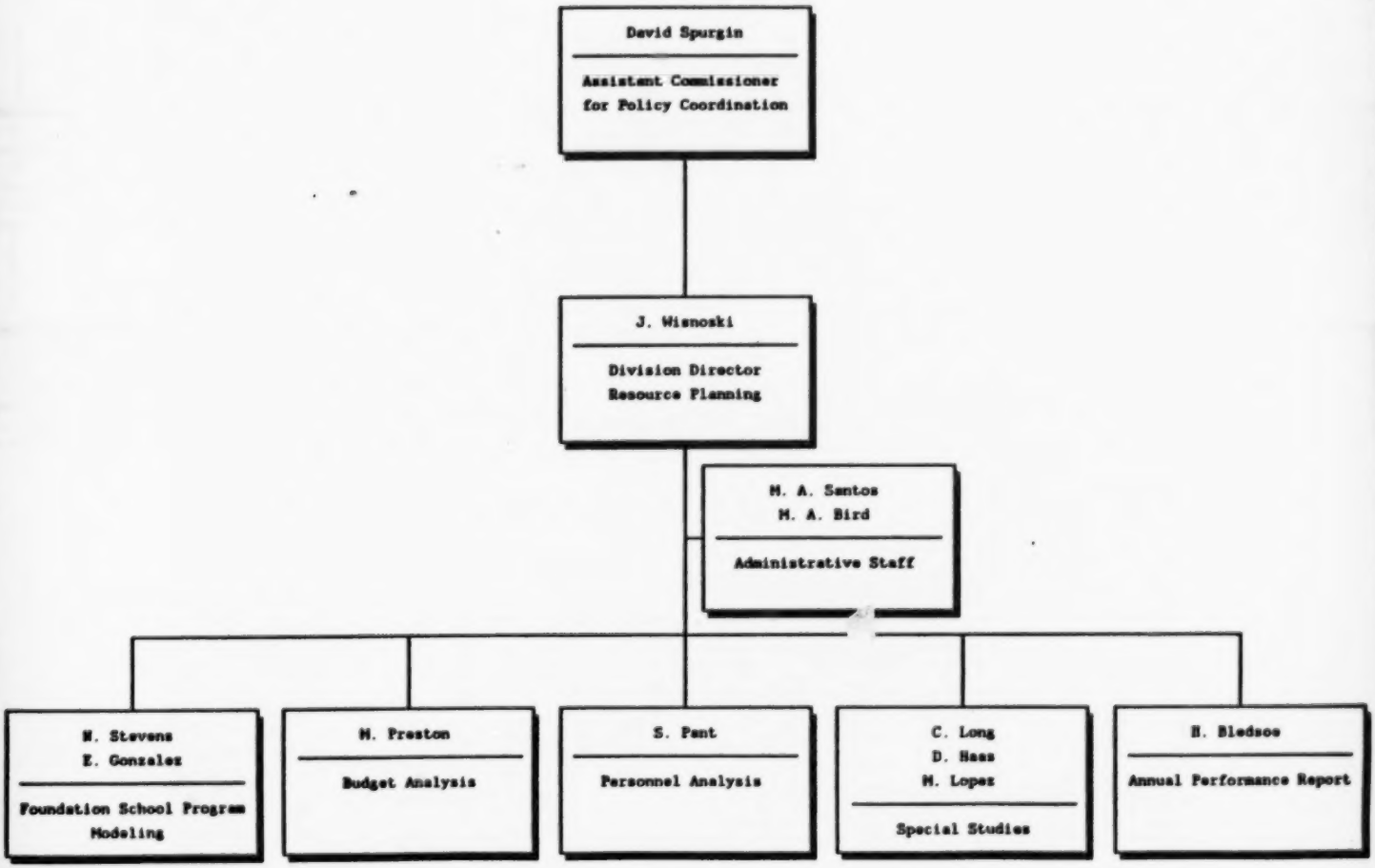


EXHIBIT III-2
ORGANIZATION CHART
INFORMATION SYSTEMS DEPARTMENT

August 1988

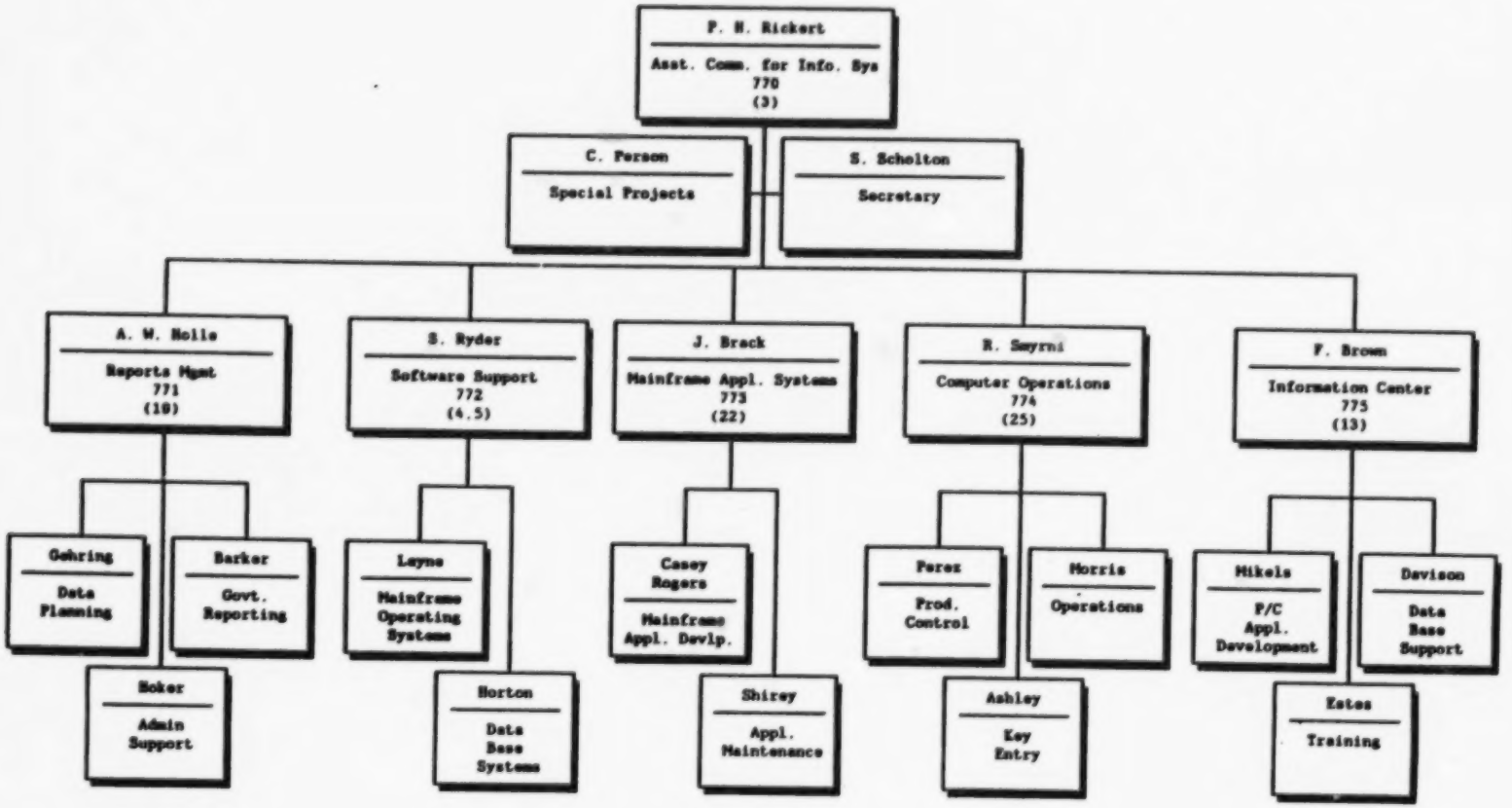
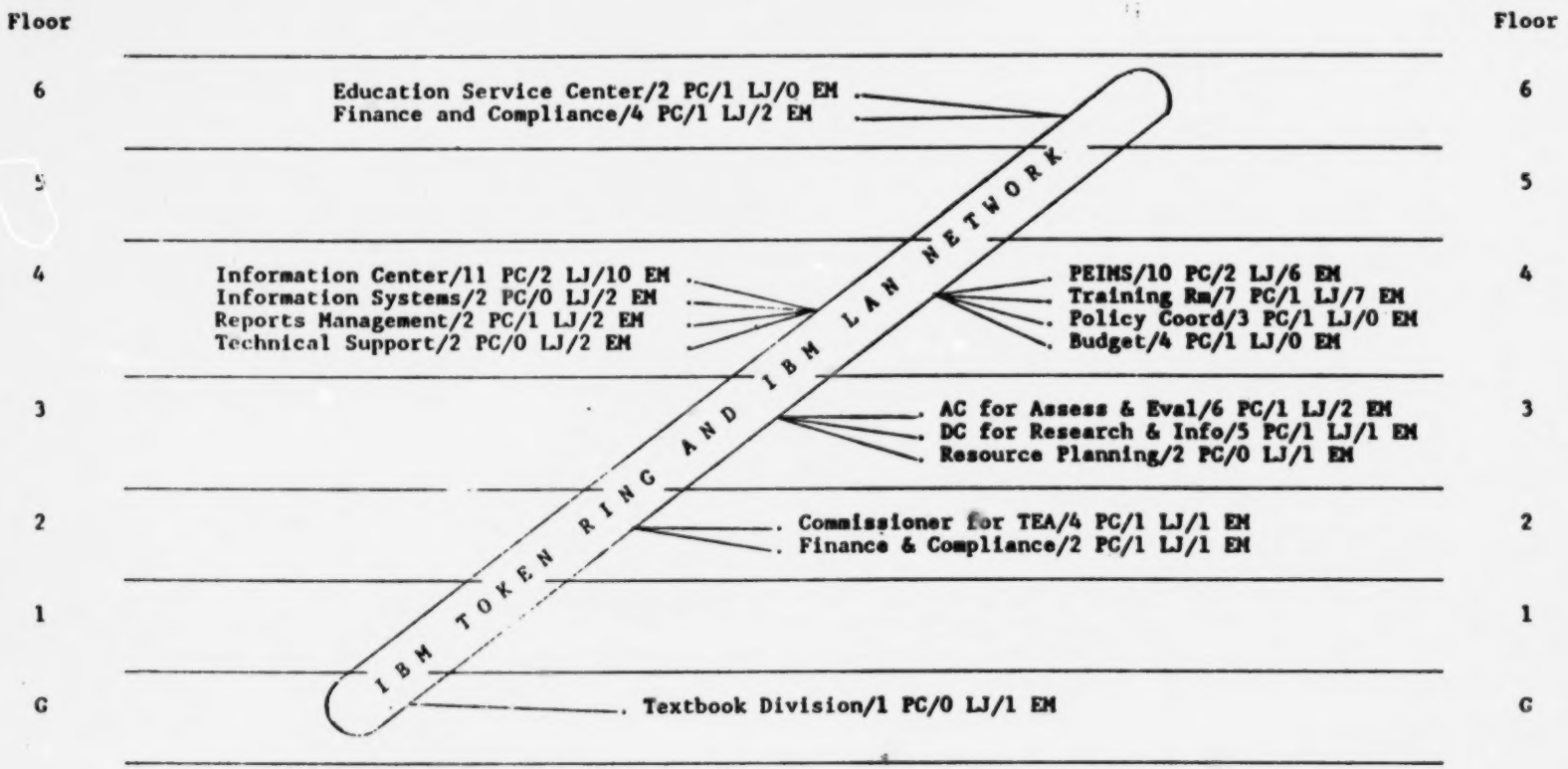


Exhibit III-3
TEA Personal Computer Network (IBM Token Ring)
Status as of September 1, 1988


Floor
Floor
6
Education Service Center/2 PC/1 LJ/0 EM
Finance and Compliance/4 PC/1 LJ/2 EM
5
4
Information Center/11 PC/2 LJ/10 EM
Information Systems/2 PC/0 LJ/2 EM
Reports Management/2 PC/1 LJ/2 EM
Technical Support/2 PC/0 LJ/2 EM
PEIMS/10 PC/2 LJ/6 EM
Training Rm/7 PC/1 LJ/7 EM
Policy Coord/3 PC/1 LJ/0 EM
Budget/4 PC/1 LJ/0 EM
3
AC for Assess & Eval/6 PC/1 LJ/2 EM
DC for Research & Info/5 PC/1 LJ/1 EM
Resource Planning/2 PC/0 LJ/1 EM
2
Commissioner for TEA/4 PC/1 LJ/1 EM
Finance & Compliance/2 PC/1 LJ/1 EM
1
G
Textbook Division/1 PC/0 LJ/1 EM
IBM TOKEN RING AND IBM LAN NETWORK

Legend

Division Name/# of Personal Computers (PC)/# of LaserJet Printers (LJ)/# of PC's with 3270 Emulation (EM)

IV. LONG-RANGE PLAN STRATEGY STATEMENT

1. Global Strategy Statement

1.1 In support of the (SBOE) Long-Range Plan for Public School Education, the (SBOE) in 1986 approved and directed the Texas Education Agency to implement a Public Education Information Management System (PEIMS). Funding for the implementation of this program was approved by the Texas Legislature in 1987. The primary focus of the PEIMS effort is the development of a strategic information systems capability to facilitate the information and decision support requirements of Texas state government, the (SBOE), the Agency and Local Education Agencies (LEA's).

Under the overall direction of the Deputy Commissioner for Research and Information, the Agency Office of Information Systems and (PEIMS) development division are coordinating their efforts to install an Agency-wide information systems capability employing the PEIMS concept. A dramatic change in and expansion of the current Agency automated environment is required to support and effectively utilize a centralized public education information system for the state of Texas. The use of modern information systems and technology will be integrated into the daily operations of virtually every component of the Agency to obtain necessary operating goals. The Agency considers achievement of this plan essential to attain the goals of the (SBOE) Long-Range Plan for Public School Education.

The Agency Automated Information and Telecommunications Systems Long-Range (AITS) Plan places emphasis, during the period 1988 - 1993 on installation of a strategic information systems capability which will support these priorities and provide the flexibility to accommodate possible changes in educational emphasis during future years.

Within the Agency user community, significant changes will follow the development of this greatly improved automated environment and Agency operational productivity will continue to be affected in many areas.

- There will be significantly increased access by all user divisions to the "single authoritative source" public education data base providing an enhanced resource for education policy, planning, management and research capabilities.

- The PEIMS data base will allow standardization of all education data, enabling the Agency to provide statewide comparisons in many areas that have not been feasible in the past.

- PEIMS will provide the capability for the Divisions of Resource Planning, Program Evaluation, and others to access detailed information on public school operations to respond to unlimited ad hoc inquiries that arise in the course of Agency, state government and public entities operations.

- The Accreditation Division will be improved through the timely access of PEIMS information to expedite the accreditation process through performance-based accountability.

- The Accreditation Division, the Office of Finance and Compliance and others will be able to access information from PEIMS to perform desk reviews to improve efficiency of Agency monitoring and auditing processes. Prior to the PEIMS system, this information for review required travel to the specific school district to gain access to this information.

- The Teacher Certification Division has been able, through the use of PEIMS, to compare staff certification to actual school assignments for use in compliance monitoring.

- The Offices of Finance and Compliance, Educational Quality and others have the ability through PEIMS to break out staff data at a level of detail not previously available for more effective analysis

The developmental path that this plan proposes will also dramatically impact the Agency automated environment that currently relies on a small group of highly trained personnel to support Agency functions through independent, rigid reporting systems and traditional centralized batch processing. Strategically, this plan focuses Agency information systems resources on the following primary activities:

- Implementation of a "single authoritative" data base of information necessary for effective management guidance of the education process in Texas.

- The development and state-wide distribution of education data and data products.

- The establishment of an Agency technical support environment employing a centralized mainframe computer for Agency-wide use and distributed personal computers for interfacing with the mainframe environment in addition to local applications processing.

- The installation and use Agency-wide of "user friendly" data analysis and reporting systems.

- The development of responsive Agency operational support systems.

- The linking of appropriate Agency automated activities (mainframe and personal computer based) through the IBM "token ring" network.

- The integration into Agency daily use of telecommunications tools TEA/NET (electronic mail) and voice/video networks.

To significantly increase the Agency ability to utilize the central data base and locally operate decision and/or operational support systems, system users will be linked to the Agency mainframe via terminals and/or networked personal computers. This integrated technical environment will utilize interactive access to the data base and applications system to facilitate more effective and efficient Agency control of automated data inquiry, reporting, analysis, operational support and communications functions.

The baseline strategic technical environment necessary to support this plan is currently in place and operational (mainframe data center, personal computer equipment, data base and analysis systems, etc.). However, full implementation of this plan will be required before the Agency obtains, through automation, the improvements in effectiveness and efficiency.

2. Strategic Planning Goals

Strategic planning goals which form the basis for the information systems migration path this plan proposes are as follows:

- Increase accountability by providing timely information to support informed policy making and program administration through evaluation of the degree to which statewide educational systems meet functional goals (improving educational quality, development of curriculum and programs, etc.).

- Make Agency information a resource available to the entire governmental and educational community of Texas.

- Increase the standardization, accessibility and use of Agency automated data.

- Improve the quality and timeliness of Agency information.

. Ability to efficiently and effectively serve:

Local entities on student performance
Statewide entities for accountability/program
Agency management
Federal governmental reporting

3. Strategic Alternatives

The developmental methodology that the Agency has adopted since the passage of House Bill 72 can be characterized as a combination of the traditional with prototyping components. The Agency has used the prototyping concept to begin the initial development of the PEIMS products and is adopting a more formal methodological approach for continued development that includes flexible design and development techniques, project prioritization and project management procedures.

In evaluating the alternatives available for the storage, management and processing of the growing "single authoritative source" data base, the following factors were considered:

. Alternative System Architectures considered for processing of data were:

1. Centralized Processing at the Agency (both detailed and aggregated at the Agency). All processing and data storage would be centralized at the Agency.

2. Decentralized Processing (detailed at outside source/aggregated at the Agency). The processing and storage of detailed data would be from an outside source. The Agency would then have telecommunication links to these sources.

3. Decentralized Processing (detail and aggregation performed by outside source). The processing, storage, and aggregation would be performed by outside sources with telecommunication links to the Agency.

Software

Alternatives addressing the question of how data would be stored and managed were:

1. Database Management System
Under this option detailed and decision support data would be in a Database Management System which would utilize disk storage.

2. Under this option detailed and decision support data would be stored in flat files which would be stored on disk.

3. SAS File Format
Under this option detailed and decision support data would be stored in SAS files which would be stored on disk.

The conclusions reached, which form the technical basis for this plan, were as follows:

. System Architecture

The Agency will maintain and enhance as necessary the Centralized processing configuration. The more elaborate decentralized options place a large burden on local school districts which the Agency is committed to prevent. While the Centralized scheme addresses the primary processing and storage, the Education Service Centers will still be utilized for initial data collection. This option provides the Agency with the maximum amount of flexibility. Having both the detailed and decision support (aggregated) data at the Agency allows the Agency to respond quickly to ad hoc requests without having to communicate extensively with outside entities.

. Data Storage and Access Methods

The Agency will maintain the data in the media and software appropriate to the expected use of the information. The IBM "DB2" data base system has been selected to support data storage and management in conjunction with the IBM Query Management System (QMF) and (SAS) Statistical Analysis System to support data analysis needs. These products were chosen due to the complex interrelationships that Agency analysis requires. Alternative systems utilizing structured files do not provide the flexibility for most of these relationships without large scale data redundancy. All of the detailed data and a large amount of the aggregated data will be maintained on DB2.

4. Automated Resource Selection Strategy

The strategy employed to review and project the computer resources (hardware and software) needs of the Agency consists of the following:

. A long term assessment of Agency systems support requirements

. Development of a "core" technical architecture based on projected Agency needs

- The selection of necessary software systems based on detail Agency operational requirements

- The selection of computer hardware operationally compatible with the "core" technical architecture that will meet Agency requirements

To support the concept of a "single authoritative data source" and the processing requirements of this plan, an integrated technical architecture oriented around a central mainframe computer is required. The major functions of this central computer will be to store (PEIMS) and other primary Agency data, efficiently support data access/analysis/reporting, host the data telecommunications capability and process the large operational support and decision support systems of the Agency.

This plan calls for the progressive development of necessary systems and Agency processing capability. This will include selective procurement of computer equipment based on detail analysis of current capability, projected growth requirements and an in depth evaluation of equipment and procurement alternatives.

Section 8 of this plan describes in detail the projected Agency hardware requirements and currently identified hardware procurement alternatives.

Attachment 1 provides a summary schedule for proposed personal computer hardware and software procurements over the life of this plan.

Attachment 2 provides a summary schedule for proposed major hardware and software acquisitions over the life of this plan.

Attachment 3 provides a summary of the capital requirements anticipated for the procurement of the devices listed in the previous attachments.

5. Level of Innovation for the Life of This Plan

To reach the level of integrated automation that this plan proposes, the Agency will continue to move forward with necessary hardware and software products to meet evolving operational requirements. It is projected that the Agency will be required to remain current in most areas of automation if accountability requirements are to be met.

6. Summary statement of Agency Integration

The Agency will continue to link Agency users at the personal computer level to the mainframe via telecommunications as justified over the life of this plan.

7. Planned Expansion of Telecommunications

The Agency will continue to develop an internal local area network, IBM's "token ring", adding personal computers and associated hardware and software as justified and as funds are available.

The Agency will continue to advise and support the local school districts and education service centers to utilize the expanded TEA/NET as its "electronic mail" system.

The Agency does not have and will not be ready during the 1989-1992 time frame to develop a statewide data telecommunications link or network with local school districts, service centers, or other entities. A study will be performed by the Agency beginning in fiscal years 1992-93 to determine external access requirements, and, if appropriate, external access will be initiated some time in the year 1993. Until this study is complete, funding for an external telecommunications system cannot be accurately estimated.

The Agency will continue to progress and develop the current telecommunications capabilities already in place, and the Long Range Plan for Technology expands greatly on the development of external telecommunications network development.

* The Texas Education Long Range Plan for Technology has been provided as a separate document for your review.

V. ORGANIZATIONAL and ECONOMIC IMPACT

1. Summary of the Organizational and Economic Impact the Plan Will Have on the Agency

The organizational and economic basis for this system plan is founded in the benefits of economic improvements resulting from improved public education in the state of Texas. This is a different construct than the traditional system/impact/benefits association. For example, how much is it worth to the Legislature, the State Board of Education, the Commissioner, the Agency staff, and/or the general public, to know the dropout rate in Texas or to have reliable data to estimate the impact of a ten or twenty percent reduction in state financing on the fiscal stability and educational quality of school districts across Texas.

Organizational impacts and benefits also cannot be enumerated solely in terms of improvements in processing efficiency or improved personnel productivity. Different users will attach different subjective values to improved decision making capabilities brought about by this new automated structure. Finally, the proposed automated system will likely change the way certain Agency functions do their work in ways that are unpredictable at this time.

Summarized below are the primary benefits, to include improvements in fundamental Agency operations, which are expected through implementation of this plan.

- Accreditation: The Agency's ability to evaluate how well school districts are achieving educational goals will be improved through an enhanced capability to assess student and teacher performance.

- Monitoring/Compliance: The Agency's ability to evaluate how well school districts are complying with statutes will be improved through new or enhanced operation analysis and on-site inspection planning systems. Currently monitors must begin a compliance visit without master schedule information. With PEIMS, the monitor will be able to become familiar with what they will see at the campus in terms of programs. The monitor may also plan to narrow or expand a monitoring visit by analyzing PEIMS data to problem areas or areas that may not need on site observation which will speed up the monitoring functions.

- Technical Assistance: The Agency's improved technical environment and higher level of expertise will provide a basis for more complete and effective assistance to local school districts. One method is through the development of PEIMS

information tools and products that are being disseminated to school districts and subsequently are freeing critical Agency resources (man hour, etc.) to improve methods of Agency operations with local school districts and allowing analysis and research or more efficient methods to support the Texas educational system.

- Research Capability: The Agency's improved research capabilities and information data base will provide an increasingly cost effective capability through detailed analysis of state-wide comparisons that have been previously unavailable for study. Current examples include assessment of the achievement levels in bilingual education programs in Texas, analyzing the effects of federal funding cutbacks upon specific programs, tracking individual students over a period of years to assess trends in student achievement or drop out rates, etc.

- Improved Information: Agency secured automated information will be more detailed, timely and comparable, providing an improved basis to assess the equity, quality and effectiveness of public education in Texas. This will also allow the targeting of districts and specific programs requiring improvements. The data structure will be designed to provide the greatest degree of flexibility possible to allow the Agency to quickly accommodate future changes in information requirements.

- Quality of Service: New and enhanced operational support systems to be developed under this plan will result in significantly improved Agency operational efficiency and a higher quality of service.

- Internal Efficiency: The standardized data base structure and centralized technical support environment will result in better coordination among the Agency divisions through common terminology and shared decision support systems.

- Mandatory Reporting: The planned information systems structure will improve the Agency's capability to respond more quickly to changing federal and legislative reporting requirements.

- Operating Efficiency: The state will benefit from the implementation of this plan through the economic savings of the reduction of paperwork and processing of forms (consolidation of reporting requirements; elimination and streamlining of forms). Consolidation of data collection then shifting emphasis to data usage and quality and greatly improving the timeliness of education data.

- **Audit Support:** The Agency audit function will be enhanced by the comprehensive and detailed information base. This will facilitate the Agency's ability to identify and redirect surplus funds or those funds that are identified as budgeted for inappropriate use.

Another impact of implementation of this plan will be a significant need and subsequent increase in computing power.

2. Impact of the AITS Plan on Other State Government

This plan will affect in a positive manner several governmental bodies within the state. The Treasury and the Comptroller of Public Accounts will be affected through more timely reporting of budgetary and financial data. The Legislature, the Governor's Office and the State Auditor will be affected by the Agency's ability to provide more detailed and timely information. Finally, improved information systems will provide the Agency with the ability to better service all state Agencies through enhanced operating responsiveness and efficiency.

VI. FUTURE POLICY IMPLICATIONS

1. Summary of Impact of AITS Plan on Agency Policy

Through this plan the State Board of Education intends to set in place a research and analysis system to support the implementation of a methodology in improving public education in Texas. Primary policy implications resulting from this plan are as follows:

- Condition: The Agency considers information concerning public education in Texas to be a primary shareable resource and automation the most timely, efficient and useful means to provide access to this information within and outside of the Agency to remain accountable to the state.

  Policy Implication: The Agency will continue to review and revise information policies to ensure adequate control over and use of this automated information.

- Condition: The Agency will continue to maintain a large amount of automated detail information about local school districts - including specific student data, test scores, etc.

  Policy Implication: The Agency will develop a very strong security administration function to ensure that necessary safeguards are in place to assure the security and integrity of Agency automated data bases.

- Condition: The large amount of automated data to be maintained by the Agency requires careful management to efficiently utilize available resources.

  Policy Implication: Data standards and usage of automated resources will be frequently reviewed and revised as required Agency-wide to ensure that the automated Agency information and resources are used effectively and managed efficiently.

- Condition: The Agency's research and policy coordination areas will be able to utilize the magnitude of detailed information generated from the PEIMS data base and associated systems.

  Policy Implication: Research of the PEIMS data could have a material impact on the manner in which individual school districts are funded by identification of budget surplus and/or deficiencies.

- Condition: The Agency will be able to provide improved educational instructional techniques and methodologies to school districts through the use of research and comparative analysis of the PEIMS data base structure.

  Policy Implication: The approach to education may be changed throughout the state based on the effective analysis and utilization of the PEIMS system.

- Condition: The Information System capability provided by this plan will allow researchers to examine the linkage between resource allocation and student achievement. The tracking of students and the programs in which they participate will permit assessment of program effectiveness without costly and time consuming field study.

  Policy Implication: Such research will guide educational policy decisions in the areas of curriculum and program structure, leading to a more effective public education system. In addition, such research should lead to the development of better measures for performance and more timely and effective review of these measures by Agency personnel.

- Condition: Detailed examination of financial and classroom activity data will yield cost information for specific services. This will provide more reliable estimates of programmatic cost, which may suggest modifying funding structures to more accurately support those costs.

  Policy Implication: Such changes when applied by the State Board of Education will afford the opportunity to create a higher degree of financial inquiry among districts with varying program needs.

VII. HIGH PRIORITY PROJECTS

1. Major Development Activities within the Agency

The State Board of Education has established a Long-Range Plan for Texas Public School Education. Goal 4 of this plan which specifies that the organization and management of all levels of the educational system will be productive, efficient, and accountable has generated the justification for the projects listed as high priority.

Priority: Educational Equity

1. Planning for the Use of Technology in Education. Provide training for trainers in planning for technology, monitor efforts of training and identify exemplary planning efforts.

2. Master Plan for Vocational Education. Implementation of Vocational Educational Education Master Plan initiatives.

3. State Plan for Regional Education Service Centers. Implementation of revised education service center state plan.

4. Long-Range Plan for Technology. begin implementation of technology plan.

5. Finance Studies. New finance studies to provide enhanced equity status.

6. Technical Assistance to Low Performing Districts. Provide assistance through initial campus visits and development of technical assistance plans and materials.

7. Dropout Prevention. Implement HB 1010, including the establishment of a clearinghouse on dropout prevention and provision of technical assistance to school districts.

8. Compensatory Education. Expanded services in compensatory education.

9. Performance-based Accreditation. Special focus on at risk students, expanded use of student test data, and implementation of accreditation provisions of compensatory education rule. Assistance in implementing site-based management approach.

10. Special Programs. Programs for students who are legalized aliens, migrants, homeless, or in residential care, federal preschool grants to deliver free, appropriate services to handicapped students, adult and community education, and proprietary schools/veterans education.

11. Accounting. Improved utilization of accounting system and follow-up on audit recommendations.

The following Information Systems high priority projects are planned during the period of 1988 - 1993. These activities will commit the Agency to further automation support efforts beyond the scope of this plan.

1.1 Agency-Wide Computer Usage Tools

A major focus of this plan is the Agency-wide use of automation to obtain improved operational efficiency and effectiveness. To obtain this goal, consulting support will be provided to the Agency user community by the Agency technical staff over the life of this plan.

To support this usage and provide an efficiently operating technical environment, necessary computer software systems will be provided as follows:

- FY 1988-89: Select, procure and install mainframe computer software systems to support:
  - Data base management and access
  - User friendly "data analysis and reporting" information systems
  - Efficient development and analysis of applications systems

The acquisition of these software systems will provide a flexible data base environment for use Agency-wide. These systems will also permit the expansion of technology use to the wide range of the Agency user community from managers, sophisticated users, public information users...to the most basic novice.

- FY 1990-91: Procure and install performance monitoring and data file management software to manage growing Agency computer resources. Procure and install a mainframe based data entry system and retire the current (CADE 1900) data entry system which has surpassed its useful life. Procure and install additional data base management and data dictionary software to improve the Agency's capability to monitor data base performance, assure non-redundancy of data elements, manage data base views and adequately identify Agency automated data for general use.

1.2 Public Education Information Management System Data Base

Development and implementation of the PEIMS data base will continue according to the following approved schedule:

- FY 1988-89: Add product reporting information on local school district dropouts and provide actual financial figures. Add additional information on dropouts and financial figures as available. Provide detailed data views of student demographic and special program participation. Provide summary views of student demographics and student special program participation. Pilot test student data subsystem.

- FY 1989-90: Complete dropout information, contact hour information, and student schedules for grades 9-12. Implement student data subsystem. Research and design an "ease of use" access system.

- FY 1990-91: Add student test scores to the growing PEIMS data base. Incorporate student schedules for all grades. Provide student/teacher linkage information to the data base. Continue to implement student data subsystem. Build the prototype for "ease of use" access system. Add one professional to cover the increasing demands for liaison with education service centers. Add one support staff to increase the technical writing capability of the Agency.

- FY 1991-92: Add facilities data to the growing PEIMS data base. Continue to implement the student data subsystem. Develop the "ease of use" access system.

All the fundamental aspects contained in the ongoing development and design of PEIMS should be fully operational by 1993. However, the system will continue to be responsive to state-wide changes in educational needs and to issues and concerns raised by school districts (LEA's), education service centers (ESC's), and other users of the system.

1.3 Educational Materials System (Textbooks)

The current "textbook" procurement and accounting system operational on the mainframe no longer sufficiently addresses the high transaction volume and accountability requirements of the Agency.

The Agency is currently developing an Educational Materials System which will replace the current Textbook system per the following schedule:

- 1987-88: Design the educational materials system.

- 1988-89: Program and test the educational materials system.

- 1989-90: Implement the educational materials system in time to support the 1990-91 school year.

1.4 State Teacher Certification System

Current automated support for this function is limited to the generation of teacher certificates and permits. It does not address processing support for the high transaction volume incurred by the operation or the need for rapid access to certification application status information.

The Agency has responded to this situation by initiating development of a new Certification System according to the following schedule:

- FY 1988-89: Develop and implement an automated reference system for teacher certificate and permit applications.
- FY 1989-91: Develop and implement an automated system to manage and process teacher certificate and permit applications.

1.5 Agency Investments System

The proprietary investment system currently operational on the Agency mainframe does not have the design flexibility to accommodate significant anticipated changes to management of the investments program. In response, the Agency will take the following action:

- FY 1988-89: An evaluation of system options to meet projected needs will be performed and a future approach determined.
- FY 1989-?: Based on the results of the system evaluation, establish an operational plan to provide adequate automated support to the investments management function and proceed to completion.

1.6 Financial Management System

The automated Agency financial management system currently in operation lacks the necessary scope, flexibility and responsiveness to meet the changing needs of the Agency. In response, the Agency will perform the following:

- FY 1990-91: A comprehensive review of the Agency financial management process, to include current and projected requirements, will be performed.
- FY 199?: Develop and install a new financial management system.

1.7 Standard Application System

This system calculates and tracks federal funding payments to the school districts; (example: school lunch and school breakfast programs). This system no longer effectively meets the needs of the Agency. The method of data capture requires the users to prepare many paper intensive forms which then must be routed to key entry. The user divisions do not have the ability to enter on-line any necessary revisions once the initial data has been entered without producing another paper form that is again routed through key entry. This results in incorrect reports and may delay payments to school districts which require this financial assistance. The Agency plans to improve this system according to the following schedule:

- FY 1988-89: Development of an operational plan for development of a new system.

- FY 1990-?: Development and implementation of the new system.

1.8 Office Automation

Implementation of the current Agency office automation plan, which includes progressive Agency-wide expansion of personal computer utilization, will continue during 1989 and over the life of this plan.

Based on Agency division needs and thorough justification, personal computer equipment will continue to be procured within budgetary limits. The primary focus of these procurements includes:

- Installation and maintenance of new and current PC hardware and software systems for use Agency-wide.

- Provision of personal computer based graphics and publication capabilities.

- Expansion of the Agency personal computer network as required.

1.9 Technical Training

During FY 1989 and throughout the life of this plan, the Agency will continue to sponsor and expand the technical training program Agency-wide to train personnel in a variety of PC and mainframe based data analysis/reporting systems, as well as the use of personal computer network (token ring) and electronic mail (TEA/NET) systems.

1.10 Statewide Communication System

The Agency will utilize and continue to sponsor use of the current TEA/NET service as the primary "electronic mail" system.

The Agency does not have and will not be ready during the 1989-1992 time frame to develop a statewide data telecommunications link or network with local school districts, service center, or other entities. A study will be performed by the Agency beginning in fiscal years 1992-93 to determine external access requirement, and, if appropriate, external access will be initiated some time in the year 1993.

Until this study is complete, funding for an external telecommunications system cannot be accurately estimated.

VIII. AUTOMATED RESOURCES UTILIZATION AND ECONOMIC OPTIONS

1. Background Information

The Agency's automated environment is based on IBM technology and currently configured around a central mainframe computer utilizing the IBM MVS-SP operating system. The Agency mainframe is an IBM Model 4381-Q14. Attached to this mainframe are associated disk storage, tape storage, controllers and other mainframe hardware and software. In addition, the Agency utilizes personal computers extensively and operates an internal IBM "token ring" network which provides personal computer access to the mainframe computer, as well as interaction with other personal computers throughout the Agency.

2. Mainframe Computer Utilization

Growth in the utilization of the Agency mainframe computer has occurred since its procurement in 1985. The current average utilization of this processor is approximately 65% during scheduled Agency operating hours. Significant growth in mainframe utilization will occur due to expanded Agency-wide use resulting from implementation of the PEIMS system, new and improved operation support systems and utilization of new on-line data access and analysis tools. Use of tools such as QMF and SAS will be extensive as they will allow the full range of Agency users to access and utilize automated information that has been historically gathered manually or was not available. This utilization will grow significantly during the life of this plan and place a significant demand on processing resources.

While current program utilization as a percentage of the total mainframe computer system can be determined, proposed program utilization cannot. During the course of this plan, the content of Agency programs and processing resources will dramatically change in ways that cannot be projected at that level of detail. However, cost estimates for program utilization have been furnished in Attachment 8.

To project Agency mainframe processor utilization, major applications were grouped by category based on the method of processing and/or major operating system under which the run. These systems categories are as follows:

Batch:
Batch processing is the most efficient technique for scheduling and executing large numbers of standard transactions. Such transactions are grouped together as a batch file and then processed.

Examples of Agency production Batch processing applications:

- Financial Management System
- Foundation School Program
- Teacher Certification
- Textbooks

  etc...

SAS:
A statistical analysis reporting system utilized by the Agency for ad-hoc and production applications.

Roscoe:
A utility which permits users to initiate jobs from their terminals through the use of:

- UJS User Job Setup feature
- RPFs to facilitate user library interfacing

CICS/IDEAL:
- A recently acquired programming support system which will be used to develop and process future Agency operational support systems.

Model 204:
- Early generation data management system used to support the storage of data files for current production applications such as:

  - FMS
  - SAS
  - Transportation
  - Personnel
  - Budget

    etc...

DB2/TSO:
- New IBM relational database system that will support the majority of Agency application systems as they are developed utilizing this new technology.

  Systems currently under development in DB2:

  - PEIMS Data Management System
  - Teacher Certification System
  - Educational Materials (Textbook) System

Overhead:

. Additional system utilities that manage the operations of the mainframe configuration.

  . MVS
  . VTAM
  . JES

Based on historical Agency processing levels and future growth outlined in this plan, the following growth rates were estimated for each of the major system categories identified above.

Anticipated Annual Growth Percentages

System Category	Annual Growth Percentage
Batch Processing	12%
Roscoe	12%
SAS	12%
Model 204	<25>
CICS/IDEAL	24%
DB2/TSO (QMF)	120%
Overhead (MVS,VTAM,JES)	12%

Using these projected growth percentages and current mainframe processor utilization as an initial reference, a growth curve was developed projecting Agency processor capacity requirements for the period 1989-1993. Maximum design capacity (70% utilization) limits of available IBM design processors were compared to these growth curves to aid in determining the most cost effective upgrade plan. Industry standards consider 70% average processor utilization to be the design limit for effective and efficient utilization of a mainframe computer configuration. Exceeding this percentage will result in processing delays, response time degradation, and increased I/O constraints. Exhibit VIII-1 presents this growth curve.

Mainframe Computer Growth Options

Examination of the growth curve reveals that demands on the current 4381 mainframe will exceed maximum capacity by FY 1990 and conversion to a larger processor will be required at that time.

The following table corresponds to Exhibit VIII-1 and statistically provides a comparison of Agency processor growth requirements by year to representative available computer upgrade options. Exhibit VIII-2 describes in graphical form the percentage CPU utilization by system category corresponding to each total utilization figure contained in the table. The first

page of Exhibit VIII-2 describes the current utilization of the Agency 4381 mainframe.

TEA Mainframe Systems/Growth Projection
% Average Utilization by Fiscal Year
Fiscal Years

Mainframe System	89	90	91	92	93
4381-14 (current)	75	100	--	--	--
4381-24 (maximum)	58	78	--	--	--
3090-150E	46	58	82	--	--
3090-180E	--	36	51	73	100
3090-200E	--	--	--	40	66

An analysis of the above table, using an average utilization of 70 percent as the point of necessary upgrade confirms that the Agency 4381 processor cannot adequately support Agency processing requirements beyond FY 1989.

Considering the alternatives listed, procurement of an 150E series mainframe in FY 1990 would only support Agency processing requirements effectively for one year. However, procurement of an 180E series mainframe would support the Agency and anticipated growth scenarios for the fiscal periods 1990 through 1992. In FY 1993 an upgrade to a larger mainframe would again be required.

The Agency operating budget for 1988-89 provides for an 8 MB internal memory upgrade to the current 4381 at a cost of approximately $34,000. This upgrade is considered necessary to provide sufficient processing capacity through fiscal year 1989. Based on the above analysis, the procurement in early FY 1990 of an IBM or IBM compatible 3090-180E level mainframe has been proposed in the FY 1990 biennial budget request to provide adequate support for Agency mainframe processing requirements.

IBM model machines were used for analysis purposes and are representative of the range of growth possibilities available today. The Agency is committed to the research of all possible alternatives to obtain the most cost effective solution to the automated requirements of the Agency and the state. Exhibit VIII-3 presents a more complete comparison of IBM and IBM compatible processors provided by primary vendors (AMDAHL, IBM, and NAS).

Purchase cost of a 3090-180E level machine in FY 1990 is estimated at approximately $2.25 million. Procurement on a four year financing plan would incur an annual cost (principle and interest) of approximately $720,000.00.

The method of financing this AITS long-range plan cannot be fully determined at this time, however, the plan does fully support the Legislative Appropriation Request. At this time, the Agency

assumes that direct payment will be made for capital expenditures through general funds, federal funds or a combination of both. The optional use of debt financing will be evaluated in the procurement process for all major capital expenditures.

3. Mainframe Software Utilization Requirements

The Agency mainframe computer environment is based on the IBM MVS operating system. The software systems installed on the mainframe computer provide for Agency-wide access to and utilization of automated information for operational and decision support purposes. Systems installed to date; which are technically compatible and an integrated combination of data management and access/analysis tools, are as follows:

- IBM Database System (DB2)
- IBM Query Management Facility (QMF)
- Statistical Analysis System (SAS)
- Program Development System (IDEAL)

The primary capabilities provided by these tools can be summarized as follows:

- Data Management and Access - The new IBM relational database system DB2 provides global, flexible access to and management of the increasing volume of data contained in the PEIMS data base and other operational data files. System features include menu-driven interface, use on non-procedural language and file building capabilities.

- Data Query and Reporting - The currently installed SAS Statistical Analysis System and newly acquired IBM Query Management Facility (QMF) provide on-screen report design capabilities, report writer languages, calculation routines, and help facilities for ad hoc and full feature data analysis and reporting.

- Modeling Tools - The SAS Statistical Analysis System provides financial/statistical routines and spreadsheet features to build analysis routines.

- Business Graphics - Both the SAS and QMF systems provide bar chart, pie chart, line chart, x/y graph and scatter graph generation capabilities.

- Operational Support - The IDEAL system allows application development to progress with greater economy and efficiency, allowing programmers to more effectively design and develop application systems.

Future Requirements

To maintain sufficient operating capabilities to meet Agency requirements, the following primary new software systems, in conjunction with new mainframe hardware enhancements will be required during the life of this plan.

- MVS Operating System - The current software used by th Agency to operate the mainframe computer is the "SP" version of the IBM "MVS" operating system. This is an older version of the MVS product and does not provide necessary features required to process new versions of many software systems utilized by the Agency. Installation of the newer "XA" version of MVS is required to obtain necessary serviceability and productivity improvements. For example, the high volume of on-line demand associated with Agency processing requirements necessitate operating system features that provide virtual storage constraint relief. MVS/XA provides this feature and real storage management improvements by minimizing I/O buffer movement. Of immediate concern is the need to install the most recent version of the IBM DB2 data base system to obtain significant operating improvements and data management. This version cannot be installed on the "SP" version of MVS but requires the "XA" version to operate. Installation of this new version of MVS is scheduled for early 1989 and is a major task expected to take six months to complete. The incremental annual software lease cost resulting from this upgrade is approximately $60,000.

- File Management System - To provide the most effective utilization of disk storage capacity, a software system is required providing automatic analysis of data retention requirements and assignment of computer data to storage based on this determination. The primary benefit to be obtained from this system is maximum utilization of limited and expensive disk storage resources. Procurement and installation of a file management system is planned for FY 1990. Estimated cost for this software is approximately $50,000.

- Mainframe Performance Analysis System - The dynamic nature of Agency processing demands requires an automated system to provide analysis for management of computer capacity utilization and processing performance. The primary benefits to be obtained are improved computer resource utilization, increased processing thruput and more accurate capacity requirements planning. Procurement and installation of a mainframe performance analysis system is planned for FY 1991. Estimated cost for this software is approximately $30,000.

- Data Base Dictionary System - Use of a larger control data base requires a system to serve as a central source of information for control and definition of data stored in the Agency data base. Primary benefits to be obtained are central management of data definitions and edit criteria for analysis/report planning and an automated interface to aid in coding of data processing applications. Procurement and installation of a data base dictionary system is planned for fiscal year 1990. Estimated cost for this software is approximately $30,000.

- Data Base Performance Monitoring System - This system will provide analysis and information for use in managing computer resource requirements of the Agency data base system, aid in performance tuning of the system and provide evaluations to assure the efficient design of data base applications systems. Procurement and installation of such a system is planned for FY 1991. Estimated cost for this software is approximately $20,000.

- SYSOUT Archival System - This system will provide an automated process for rapidly storing and recalling computer output using tape as the storage medium. Primary benefits to be obtained are conservation of expensive computer disk storage capacity, a reduced need for generating or retaining paper reports and improved service level by minimizing manual involvement in the archival function. Procurement and installation of such a system is planned for FY 1990. Estimated cost for this software is approximately $35,000.

- Thruput Management System - This system will provide automated support for scheduling and managing multiple processing of recurring and non-recurring computer jobs. Primary benefits to be obtained are increased computer processing productivity via increased thruput and the flexibility to quickly support changing processing requirements. Procurement and installation of such a system is planned for FY 1991. Estimated cost for this software is approximately $12,000.

- Key Entry System - The current Agency key entry system utilizes obsolete mini-computer equipment which is expensive to maintain and subject to frequent mechanical breakdown. Installation of a modern, mainframe based key entry system is needed to provide more reliable, cost-effective service and the Agency-wide flexibility for local (division) data entry. Procurement and installation of such a system is planned for FY 1990. Estimated cost for this software is approximately $35,000. Operational savings resulting from a new key entry system are projected to be approximately $20,000/yr.

- Off-Line Data Storage System - Off-line data storage requirements are projected to increase significantly to accommodate expanded archiving/recall of data associated with Agency-wide use of automated analysis/reporting systems and PEIMS. The procurement of an automated archival management system (computer software) and cartridge tape units providing high volume and rapid data archival/retrieval operations is planned for FY 1990. Estimated cost for this system is approximately $268,000.

- Virtual Disk Storage System - This system provides centralized (mainframe) communications support for the Agency personal computer network. Primary benefits to be obtained are simplified data transfer between the Agency mainframe and personal computers and improved network efficiency by using the mainframe computer as a centralized file server. Procurement and installation of such a system is planned for FY 1992. Estimated cost for this software is approximately $40,000.

- Applications Development System - This system will provide a simple, easy to use and English-language based standard capability for development of both major and minor reporting and data processing systems. Primary benefits to be obtained are significantly simplified and rapid development of computer systems and provision of a single technical standard available for use throughout the Agency by computer users at all levels of technical expertise. Procurement and installation of such a system is planned for FY 1993. Estimated cost for this software is approximately $110,000.

4. <u>Personal Computer Requirements</u>

The Agency will continue to procure and install personal computers as the primary tool to ensure an enhanced user-access system within the Agency. In addition to traditional personal computer applications, this system will ultimately provide users with the services of well organized and comprehensive automated "views" of data residing on the mainframe, allow "fingertip" access to data and help references, and allow the end user to process this information using automated products available in both the personal computer and mainframe computer environment.

The Agency estimates a potential need for up to 900 personal computers. Approximately 200 devices are currently installed. Current plans call for the procurement of approximately 75 additional units in FY 1989 and 150 additional units per year extending from FY 1990 through FY 1993. Beginning in FY 1990, the projected annual cost for procurement of these machines is approximately $590,000 with an additional cost for associated

software of approximately $110,000. This level of funding has been requested in the fiscal 1990-91 biennial budget.

5. Personal Computer Network

The current Agency personal computer network utilizes the IBM "token ring" technology and currently has 67 devices attached. This networking system will grow significantly over the next five years to support increased use of personal computers for data analysis, information transfer, reporting and to permit more effective use of automated resources (mainframe computer, laser printers, graphics plotters, etc.)

Capital costs for expanding the network are based on projections of Agency-wide personal computer use and represent both mainframe connection and general Agency and local division network requirements.

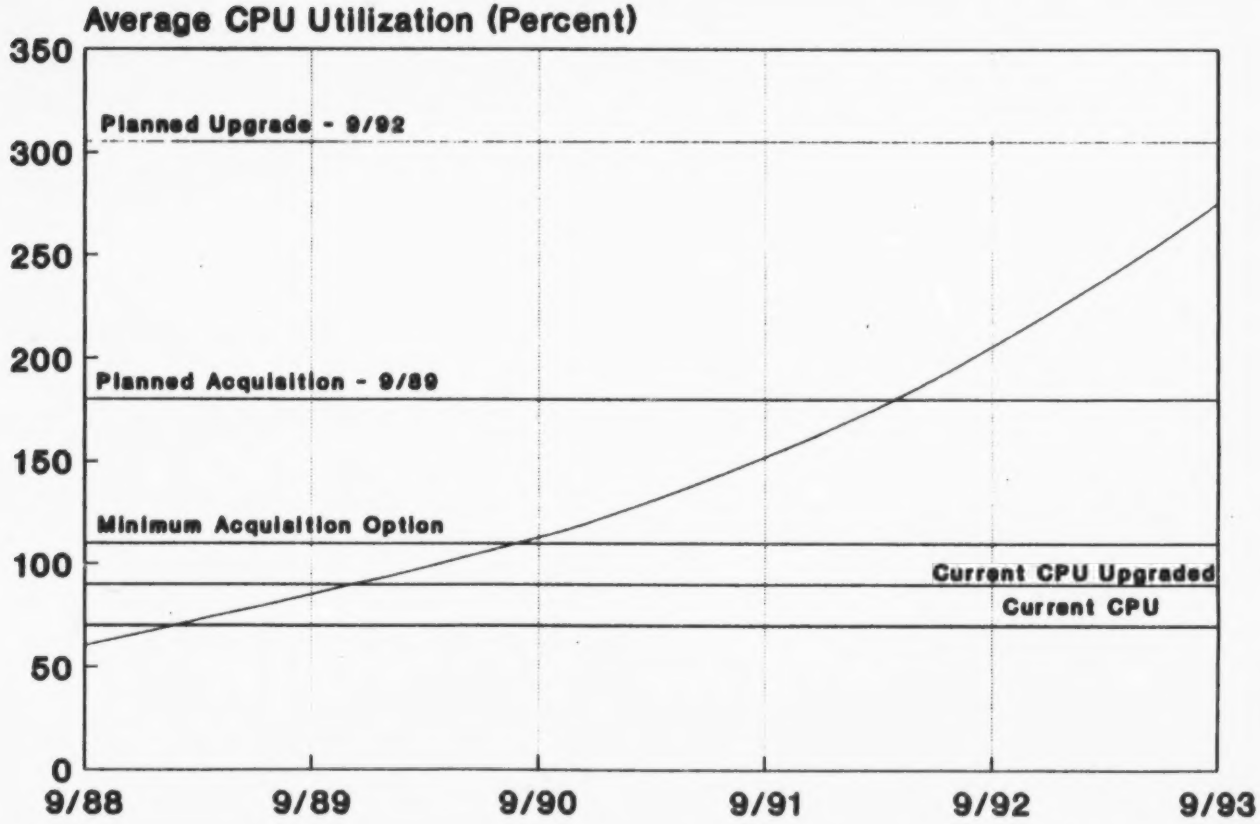
The addition of at least 75 personal computers to the existing network is expected annually through 1993. Associated costs to support this expansion are estimated to be $124,000 in FY 1989 and $250,000 each in FY 1990-93. This level of funding has been approved for FY 1989 and requested in the 1990-91 biennial budget.

6. Description of Systems Backlog

At this time, known Agency automation requirements have been identified, quantified, and scheduled as a part of this plan. Additional automation requirements may be incorporated during the course of this plan as a greater degree of information systems knowledge is developed within the Agency.

EXHIBIT VIII-1

Texas Education Agency
Projected CPU Capacity Requirements

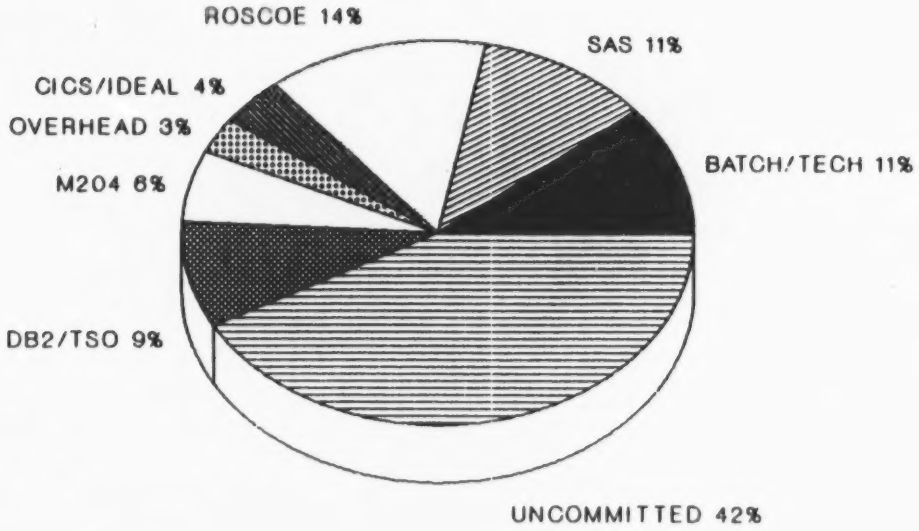


Projected Saturation Design Point: 70%

ISD13

EXHIBIT VIII-2

Texas Education Agency - Avg Workload 9/89
% CPU BY COMPONENT
IN ABSOLUTE VALUES



4381-24

8/19/88

ISD3

EXHIBIT VIII-2

Texas Education Agency - Avg Workload 9/89
% CPU BY COMPONENT
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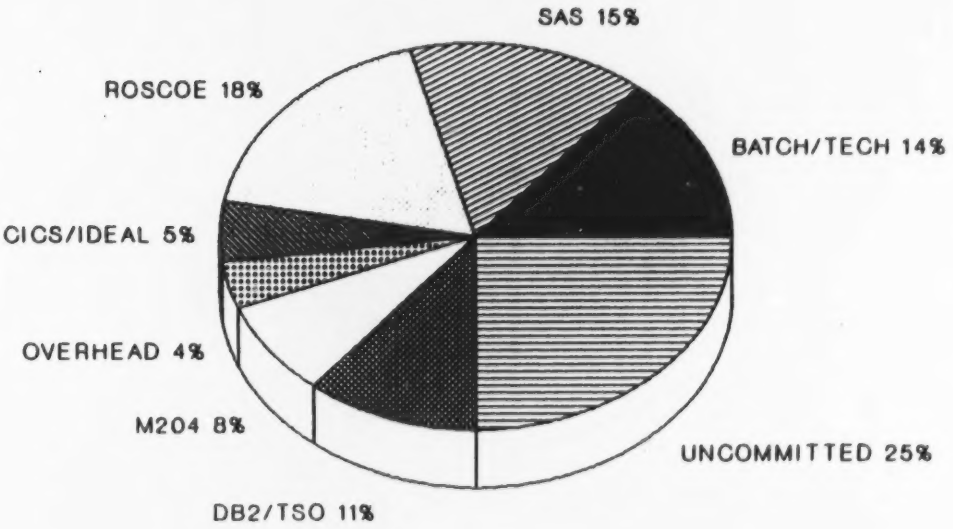

4381-14

EXHIBIT VIII-2

Texas Education Agency - Avg Workload 9/90
% CPU BY COMPONENT
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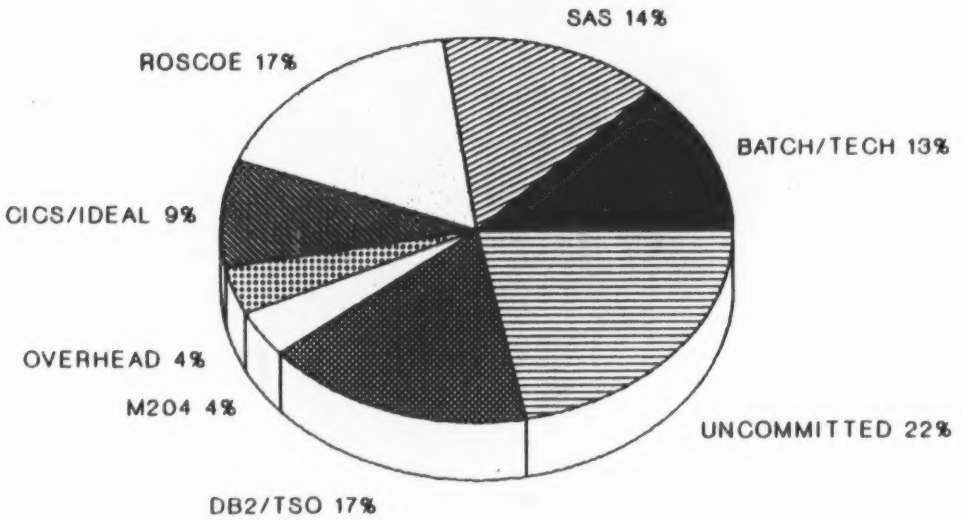
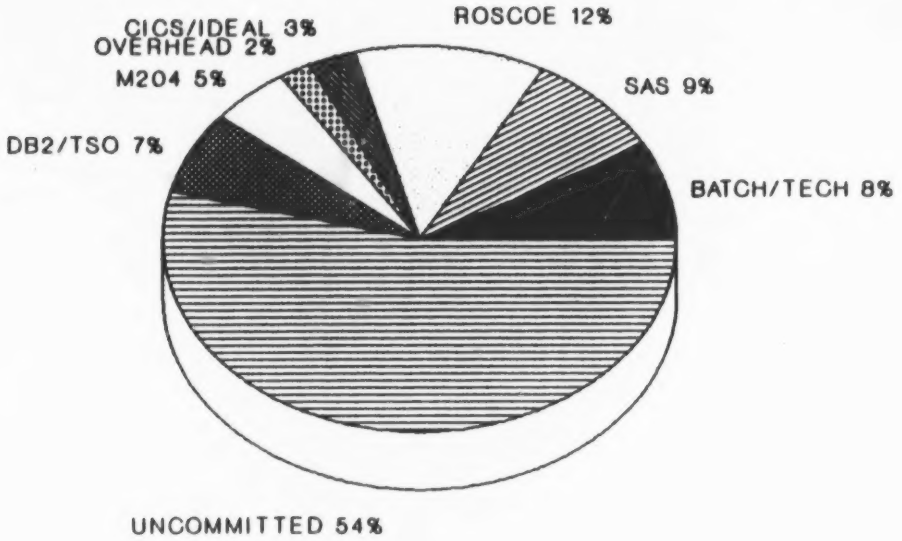


4381-24

EXHIBIT VIII-2

Texas Education Agency - Avg Workload 9/89
% CPU BY COMPONENT
IN ABSOLUTE VALUES



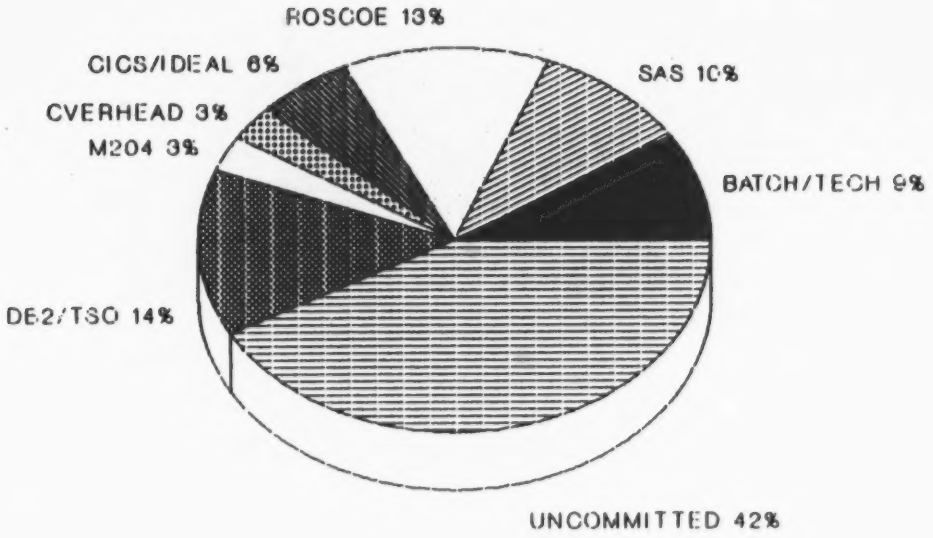
3090-150E

8/19/88

ISD5

EXHIBIT VIII-2

Texas Education Agency - Avg Workload 9/90
% CPU BY COMPONENT
IN ABSOLUTE VALUES



3090-150E

8/19/88

ISD6

EXHIBIT VIII-2

Texas Education Agency - Avg Workload 9/91
% CPU BY COMPONENT
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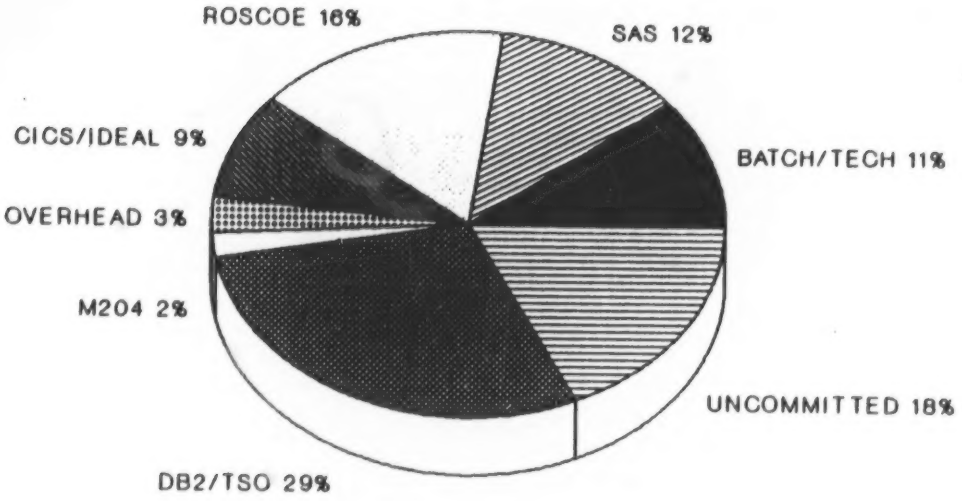

3090-150E

8/19/88

ISD7

EXHIBIT VIII-2

Texas Education Agency - Avg. Workload 9/90
% CPU BY COMPONENT
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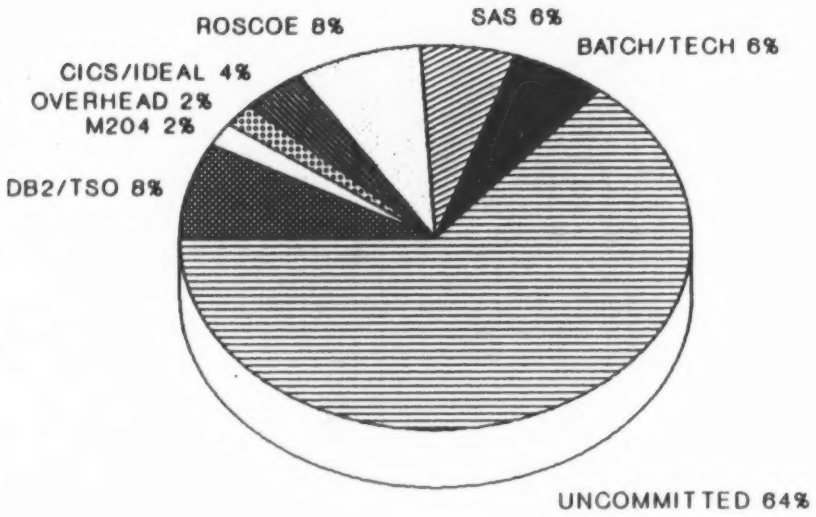


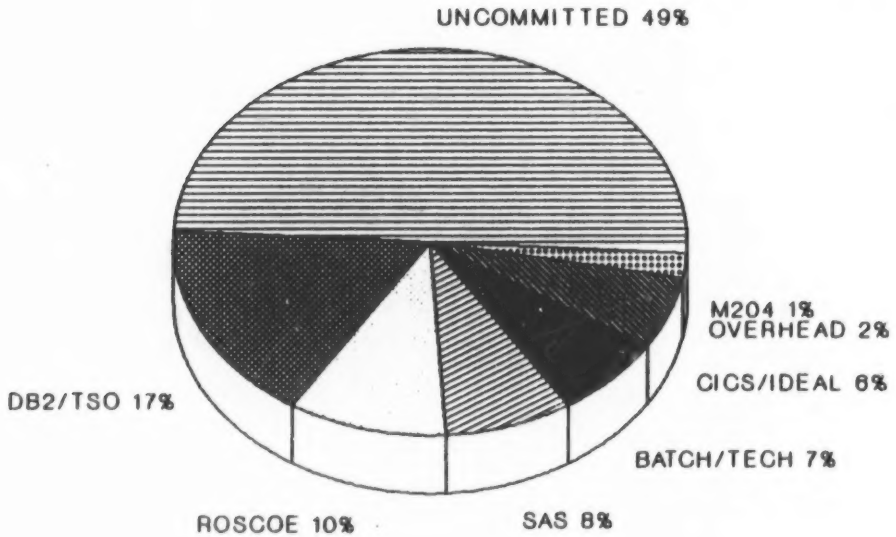
3090-180E

8/23/88

ISD12

EXHIBIT VIII-2

Texas Education Agency - Avg Workload 9/91
% CPU BY COMPONENT
IN ABSOLUTE VALUES



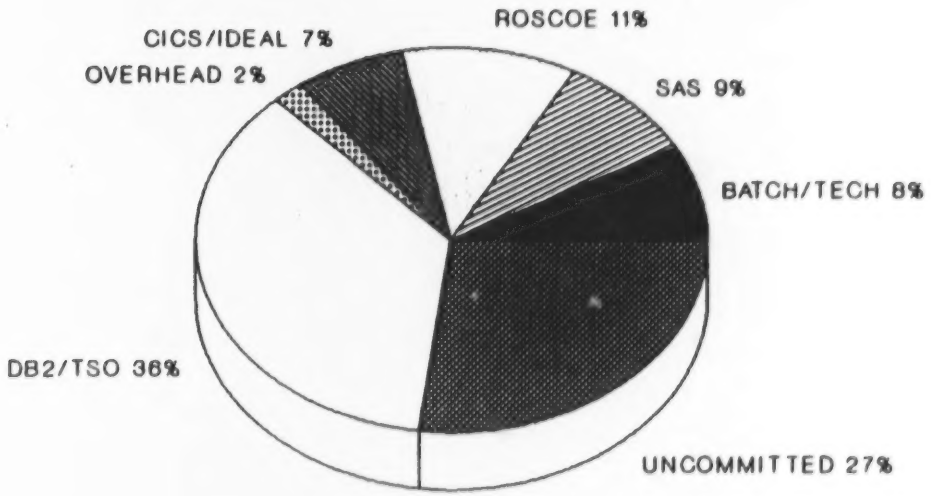
3090-180E

8/19/88

ISD8

EXHIBIT VIII-2

Texas Education Agency - Avg Workload 9/92
% CPU BY COMPONENT
IN ABSOLUTE VALUES



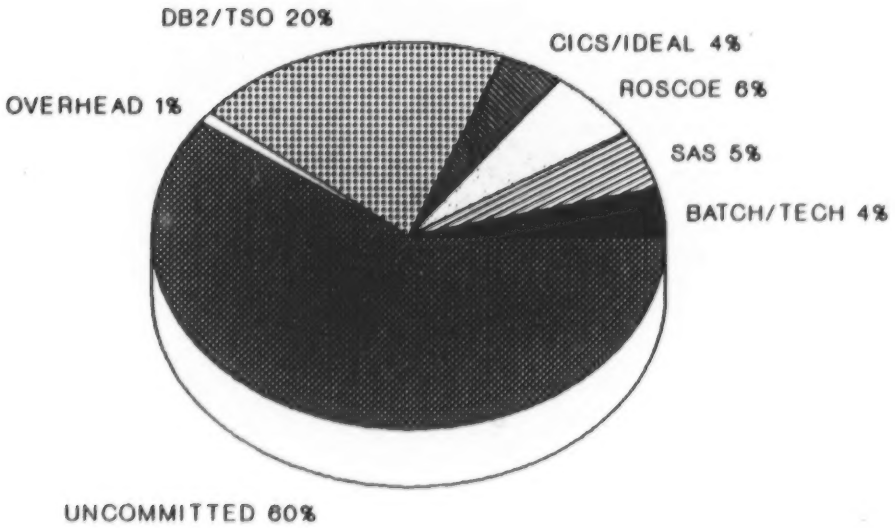
3090-180E

8/19/88

ISD9

EXHIBIT VIII-2

Texas Education Agency - Avg Workload 9/92
% CPU BY COMPONENT
IN ABSOLUTE VALUES



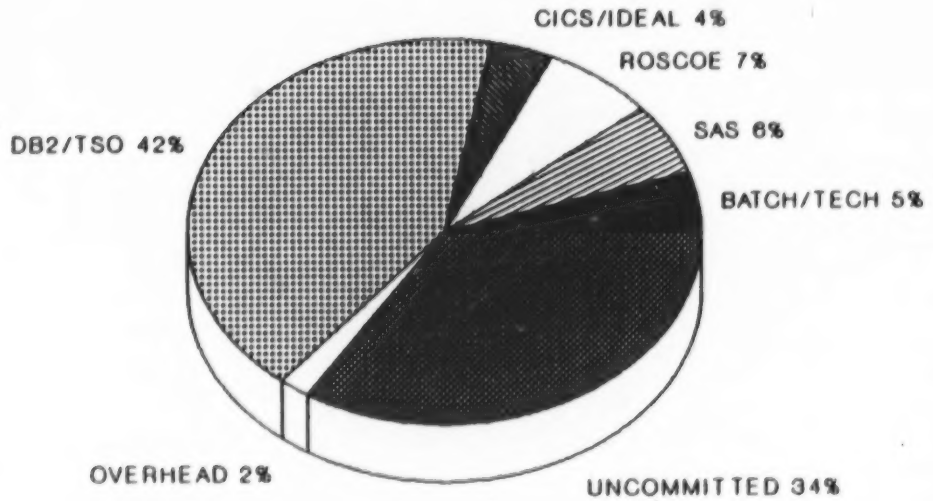
3090-200E

8/19/88

ISD10

EXHIBIT VIII-2

Texas Education Agency - Avg Workload 9/93
% CPU BY COMPONENT
IN ABSOLUTE VALUES



3090-200E

8/19/88

ISD11

EXHIBIT VIII-3

AMDAHL, IBM, AND NAS CONFIGURATIONS AND ENVIRONMENTALS

MODEL	RELATIVE PERFORMANCE	NUMBER ENGINES	MAIN STORAGE MB	NUMBER CHANNELS	EXPANDED STORE (MB)	FLOOR SPACE SQ.FT.	KBTU/ HR	KVA
3090-120E	.8	1-UP	32-128	16-32	0-128	609	82	35
5840	.8	1-UP	16-128	16-32	*	234	48	13
5850	1.0	1-UP	16-128	16-32	*	234	48	13
3090-150E	1.0	1-UP	32-128	16-32	0-128	609	82	35
5860	1.2	1-UP	16-128	16-32	*	234	48	13
XL50	1.5	1-UP	32-1024	16-48		237	108	35
3090-180E	1.8	1-UP	32-128	16-32	0-256	609	83	39
5880	2.1	2-MP	32-256	32-48	*	384	93	25
5890-190E	2.2	1-UP	32-256	16-48	*	232	69	29
XL60	2.3	1-UP	64-1024	32-64		237	108	35
XL70	2.8	2-DP	64-1024	32-64		301	158	51
3090-280E	3.2	2-MP	64-256	32-64	0-512	919	166	78
3090-200E	3.2	2-DP	64-128	32-64	0-1024	609	111	50
5890-200E	3.4	2-DP	64-256	32-64	*	232	93	42
XL80	4.1	2-DP	64-1024	32-64		301	158	51
5890-390E	4.2	2-MP	64-512	32-96	*	442	138	58
5890-300E	4.2	2-DP	64-256	32-64	*	232	93	42
3090-300E	4.4	3-TP	64-128	32-64	0-1024	682	131	58
3090-400E	5.6	4-MP	128-256	64-128	0-2048	919	211	95
5890-400E	5.8	3-MP	128-512	64-96	*	442	167	73
5990-700	6.3	2-DP	64-256	32-64	128-1024	289	80	25
XL90	5.9	3-MP	128-2048	48-128		512	267	86
XL100	7.2	4-MP	128-2048	48-128		568	317	101
5890-600E	7.5	4-MP	128-512	64-128	*	442	186	84
3090-600E	7.7	6-MP	128-256	64-128	0-2048	1066	252	111
5990-1400	11.2	4-MP	128-512	64-128	0-2048	527	160	51

* VARIABLE IN 4MB INCREMENTS

Attachment 1

PERSONAL COMPUTER EQUIPMENT REQUIREMENTS
Fiscal Years 1989 - 1993

PERSONAL COMPUTER EQUIPMENT	Capital Requirement ($000) 1989	1990	1991	1992	1993
1) Personal Computer Software Maintenance. Personal computer software systems used in the Agency are kept current through centralized testing and procurement of software systems updates by the Information Center Division. These projected procurement costs are based on current and planned Agency growth in the use of personal computer software systems during the next five years.	70	80	90	100	110
2) Personal Computer Software Additions. New personal computer software systems used by the Agency are centrally evaluated and procured by the Information Center Division based on Agency requirements and requests. The projected procurement costs associated with this function are based on planned and anticipated Agency software systems requirements over the next five years.	54	110	110	110	110
3) Personal Computer Procurement. The Agency plans to progressively expand the use of personal computers during the next five years as part of it's program for improved operational efficiency. These funds are for the Agency-wide procurement of personal computer equipment to support this program.	300	590	590	590	590
4) Personal Computer Network. The current Agency personal computer networking system will grow significantly over the next five years to support increased use of personal computers for data analysis, information transfer, reporting and to permit more effective use of automated resources (mainframe computer, laser printers, graphics plotters, etc.). Capital costs for expanding the network are based on projections of Agency-wide personal computer use and represent balance between mainframe connection capability and general Agency and local division network needs.	124	250	250	250	250

Attachment 2

MAINFRAME COMPUTER SOFTWARE REQUIREMENTS
Fiscal Years 1989 - 1993

MAINFRAME COMPUTER SOFTWARE SYSTEMS	Capital Requirement ($000) 1989	1990	1991	1992	1993
1) Annual Lease/Maintenance Services. The operating and applications systems software used by the Agency and processed on the Agency mainframe computer is primarily vendor supplied. Lease or maintenance charges for these software systems are incurred annually and required for continued use of these products. Projected costs assume installation of the IBM MVS-XA operating system in 1989.	340	390	464	510	561
2) Key Entry System. The current Agency key entry system utilizes obsolete mini-computer equipment which is expensive to maintain and subject to frequent mechanical breakdown. Installation of a modern, mainframe based key entry system is needed to provide more reliable, cost-effective service and the Agency-wide flexibility for local (division) data entry. Operational savings resulting from a new key entry system are projected to be $20,000/yr.		35			
3) SYSOUT Archival System. This system will provide an automated process for rapidly storing and recalling computer output using tape as the storage medium. Primary benefits to be obtained are conservation of expensive computer disk storage capacity, a reduced need for generating or retaining paper reports and improved service level by minimizing manual involvement in the archival function.		35			
4) Thruput Management System. This system will provide automated support for scheduling and managing multiple processing of recurring and non-recurring computer jobs. Primary benefits to be obtained are increased computer processing productivity via increased thruput and the flexibility to quickly support changing processing requirements.			12		
5) Computer Performance Management Systems. These systems are designed to obtain the most efficient utilization of mainframe computer resources and provide the basis for future equipment planning. The following systems are considered essential tools to be acquired for use in effective management of the Agency computer facility.					
• File Management System to provide the most effective utilization of disk storage capacity through automatic analysis of data retention requirements and assignment of computer data to storage based on this determination. The primary benefit to be obtained is maximum utilization of limited and expensive disk storage resources.		50			

86

87

Attachment 2

MAINFRAME COMPUTER SOFTWARE REQUIREMENTS
Fiscal Years 1989 - 1993

MAINFRAME COMPUTER SOFTWARE SYSTEMS	Capital Requirement ($000) 1989	1990	1991	1992	1993
• Mainframe Performance Analysis System to provide analysis for management of computer capacity utilization and processing performance. Primary benefits to be obtained are improved computer resource utilization, increased processing thruput and more accurate capacity requirements planning.			30		
6) Data Base Dictionary System. This system will serve as a central source of information for control and definition of data stored in the Agency data base. Primary benefits to be obtained are central management of data definitions and edit criteria for analysis/report planning and an automated interface to aid in coding of data processing applications.		30			
7) Data Base Performance Monitoring System. This system will provide analysis and information for use in managing computer resource requirements of the Agency data base system, aid in performance tuning of the system and provide evaluations to assure the efficient design of data base applications systems.			20		
8) Applications Development System. This system will provide a simple, easy to use and english-language based capability for development of both major and minor reporting and data processing systems. Primary benefits to be obtained are significantly simplified and rapid development of computer systems and provision of a single technical standard available for use throughout the Agency by computer users at all levels of technical expertise.					110

88

89

Attachment 2

MAINFRAME COMPUTER HARDWARE REQUIREMENTS
Fiscal Years 1989 - 1993

MAINFRAME COMPUTER HARDWARE SYSTEMS	Capital Requirement ($000) 1989	1990	1991	1992	1993
1) Mainframe Computer processing capacity requirements will increase in concert with planned Agency growth in the use of computer tools and the PEIMS data system. Projected mainframe computer equipment additions and capital requirements are as follows:					
• Current Computer - Final purchase payment for the current Agency mainframe computer (IBM 4381).	257				
• Computer Upgrade - The current Agency mainframe computer is an IBM 4381 Model 14. Based on projected Agency growth in mainframe processing utilization, an internal memory upgrade will be required in 1989.	34				
• Computer Replacement - Projected Agency growth in mainframe utilization is expected to exceed the capacity of the Agency 4381 by early 1990. A processing capacity analysis based on this growth projection indicates that a new mainframe with the processing capacity of an IBM 3090 Model 180E or equivalent will be required. Further upgrade of this machine to a Model 200E or equivalent will be required by 1993.		2,250			1,500
2) Disk Data Storage requirements are projected to increase to accommodate historical PEIMS data, expanded Agency use of new automated analysis and reporting systems and planned new operational support systems (Textbook, Certification, etc.). The addition of one disk data storage unit is required in each of the next five years to meet anticipated requirements.	113	394	184	184	184
3) Off-Line Data Storage requirements are projected to increase to accommodate expanded archiving/recall of data associated with Agency-wide use of automated analysis and reporting systems and PEIMS. The addition of two tape storage units is planned for FY 1989 to accommodate the projected increase in tape data storage activity. The procurement of an automated archival management system (computer software) and cartridge tape units providing high volume and rapid data archival/retrieval is planned for FY 1990.	8	268			

Attachment 2

MAINFRAME COMPUTER HARDWARE REQUIREMENTS
Fiscal Years 1989 - 1993

MAINFRAME COMPUTER HARDWARE SYSTEMS	Capital Requirement ($000) 1989	1990	1991	1992	1993
4) CRT Terminal system in use throughout the Agency is being upgraded to provide a single modern network offering enhanced operational features and reduced maintenance costs. This upgrade program is planned on a progressive basis over the next five years. A selected number of terminals are included to support Agency conversion to a new data entry system offering significant operating and cost advantages.	20	70	30	30	30
5) Remote Printer/Plotters. New data analysis and reporting systems acquired by the Agency offer the capability to automatically present information in graphical form, as well as tabular reports. The progressive acquisition of graphics plotters and standard printers linked to the Agency mainframe computer will permit Agency-wide use of this valuable data presentation capability.	20	100	100	100	100
6) Off-Line Data Storage/Retrieval System. A tape cartridge back up system to increase the effectiveness and efficiency of current back-up procedures.		58			
7) Off-Line Data Storage Equipment. To accomodate expanded archiving/recall of data associated with automated analysis and reporting systems and PEIMS.		210			

Attachment 3

SUMMARY OF MAJOR CAPITAL REQUIREMENTS IN SUPPORT OF
AITS LONG-RANGE PLAN
Fiscal Years 1989 - 1993

Capital Category	Capital Equipment ($000) 1989	1990	1991	1992	1993
• Mainframe Computer Software Systems	340	540	526	510	671
• Mainframe Computer Hardware	452	3,350	314	314	1,814
• Personal Computer Equipment	548	1,030	1,040	1,050	1,060
TOTAL: MAJOR CAPITAL REQUIREMENTS	$ 1,340	$ 4,920	$ 1,880	$ 1,874	$ 3,545

ATTACHMENT 4

HARDWARE, LEASE AND MAINTENANCE INVENTORY

AUTOMATED INFORMATION AND TELECOMMUNICATIONS COUNCIL

Agency Name: Texas Education Agency

Agency Contact: P. H. Rickert (512) 463-9747 (Telephone) 9/01/88 (Date Prepared)

DESCRIPTION											
PRIMARY VENDOR	MODEL NUMBER	MEMORY SIZE	ONLINE DISK CAPACITY	T/P LINE COSTS	COMPUTER CATEGORY	DEVICE TYPE	COUNT	TOTAL P/AMOUNT L/AMOUNT	ANNUAL M/AMOUNT L/AMOUNT	DATE ACQUIRED	PRIMARY MAINTENANCE VENDOR
IBM	4381-Q14	24MB	20,160 MB		1	0	1	1,464,000P	$ 12,024 M	6/88	IBM
"	3880					1	2	1	4,224 M	7/85	"
"	3880-D		10,080 MB			1	4	1	12,240 M	7/85	"
"	3803					2	1	1	2,616 M	7/85	"
"	3420-6					2	4	1	17,808 M	7/85	"
"	3203-5					3	1	1	5,880 M	7/85	"
"	3274					4	6	1	8,532 M	7/85	"
"	3725					4	1	1	3,079 M	7/85	"
"	3727					4	1	1	336 M	7/85	"

1-MAIN
2-SUPER
3-MINI
4-WORK
5-MICRO

0-CPU
1-DISK
2-TAPE
3-PRINTER
4-TERMINAL
5-OTHER

P-PURCHASE
L-LEASE
I-INCLUDED

M-MAINTENANCE
P-PURCHASE
L-LEASE
I-INCLUDED

HARDWARE, LEASE AND MAINTENANCE INVENTORY

AUTOMATED INFORMATION AND TELECOMMUNICATIONS COUNCIL

Agency Name: Texas Education Agency

Agency Contact: P. N. Rickert (512) 463-9747 (Telephone) 9/01/88 (Date Prepared)

DESCRIPTION											
PRIMARY VENDOR	MODEL NUMBER	MEMORY SIZE	ONLINE DISK CAPACITY	T/P LINE COSTS	COMPUTER CATEGORY	DEVICE TYPE	COUNT	TOTAL P/AMOUNT L/AMOUNT	ANNUAL M/AMOUNT I/AMOUNT	DATE ACQUIRED	PRIMARY MAINTENANCE VENDOR
IBM	3279					4	2	I	828 M	7/85	IBM
"	3287-2					3	1	3,552 P	636 M	8/85	"
"	3380-E		10,080 MB			1	2	159,910 P	5,160 M	8/86-5/87	"
"	3174					4	1	9,000 P	506 M	4/87	"
TELEX	286					3	7	28,825 P	25,000 M	10/82-3/85	
"	274-C					4	2	15,660 P	I	9/79-6/85	
"	271-3B					4	2	5,840 P	I	2/82-1/87	
"	078					4	113	107,520 P	I	3/85-5/87	SP&GSC

1-MAIN
2-SUPER
3-MINI
4-WORK
5-MICRO

0-CPU
1-DISK
2-TAPE
3-PRINTER
4-TERMINAL
5-OTHER

P-PURCHASE
L-LEASE
I-INCLUDED

M-MAINTENANCE
P-PURCHASE
L-LEASE
I-INCLUDED

HARDWARE, LEASE AND MAINTENANCE INVENTORY

AUTOMATED INFORMATION AND TELECOMMUNICATIONS COUNCIL

Agency Name: Texas Education Agency

Agency Contact: P. H. Bickert (512) 463-9747 (Telephone) 9/01/88 (Date Prepared)

DESCRIPTION											
PRIMARY VENDOR	MODEL NUMBER	MEMORY SIZE	ONLINE DISK CAPACITY	T/P LINE COSTS	COMPUTER CATEGORY	DEVICE TYPE	COUNT	TOTAL P/AMOUNT L/AMOUNT	ANNUAL M/AMOUNT L/AMOUNT	DATE ACQUIRED	PRIMARY MAINTENANCE VENDOR
TELEX	277					4	113	141,570 P	1	9/79-11/84	SP&GSC
XEROX	2700					3	1	16,800 P	7,500	7/84	XEROX
"	8700					3	1	211,200 P	30,000 M	8/86	"
SPERRY	1900	124 K	17.6 MB		3	0	1	72,968 P	17,000 M		UNISYS
"						2	1	1	1		"
"						1	1	1	1		"
"						4	17		1	8/79	"

1-MAIN
2-SUPER
3-MINI
4-WORK
5-MICRO

0-CPU
1-DISK
2-TAPE
3-PRINTER
4-TERMINAL
5-OTHER

P-PURCHASE
L-LEASE
I-INCLUDED

M-MAINTENANCE
P-PURCHASE
L-LEASE
I-INCLUDED

HARDWARE, LEASE AND MAINTENANCE INVENTORY

AUTOMATED INFORMATION AND TELECOMMUNICATIONS COUNCIL

Agency Name: Texas Education Agency

Agency Contact: P. N. Rickert (512) 463-9747 (Telephone) 9/01/88 (Date Prepared)

DESCRIPTION											
PRIMARY VENDOR	MODEL NUMBER	MEMORY SIZE	ONLINE DISK CAPACITY	T/P LINE COSTS	COMPUTER CATEGORY	DEVICE TYPE	COUNT	TOTAL P/AMOUNT L/AMOUNT	ANNUAL M/AMOUNT L/AMOUNT	DATE ACQUIRED	PRIMARY MAINTENANCE VENDOR
IBM	XT/AT	10-30 MB			5	4-5	10	50,040 P	30,000 M	7/85-8/87	SP&GSC
"	XT/AT	10-30 MB			5	5	148	574,832 P	1	"	"
"	5140 (Laptop)				5	5	24	43,368 P	1	"	"
"	Proprinter					3	147	61,665 P	1	"	"
"	Quietwriter					3	34	34,004 P	1	"	"
"	5218					3	4	5,784 P	1	"	"
Hewett-Packard	Laserjet					3	26	58,141 P	1	"	"
APPLE	MACINTOSH	20 MB			5	5	5	10,981 P	1	1/86-4/86	

1-MAIN
2-SUPER
3-MINI
4-WORK
5-MICRO

0-CPU
1-DISK
2-TAPE
3-PRINTER
4-TERMINAL
5-OTHER

P-PURCHASE
L-LEASE
I-INCLUDED

M-MAINTENANCE
P-PURCHASE
L-LEASE
I-INCLUDED

ATTACHMENT 4

PROPRIETARY SOFTWARE INVENTORY

AUTOMATED INFORMATION AND TELECOMMUNICATIONS COUNCIL

Agency Name: Texas Education Agency

Agency Contact: P. N. Bickert (512) 463-9747 (Telephone) 9/01/88 (Date Prepared)

SOFTWARE DESCRIPTION							
CATEGORY /TYPE	PRODUCT NAME	VERSION NUMBER	HARDWARE SYSTEM DESCRIPTION	DATE ACQUIRED	TOTAL P/AMOUNT L/AMOUNT	ANNUAL M/AMOUNT L/AMOUNT	COMMENTS
S-1	MVS/JES 2	1.3.5	IBM 4381	1985	10,200 P	$26,040 L*	Please amount includes
S-4	ACF/VTAM	2.1	"	"	2,894 P	14,940 L*	maintenance charge
S-4	DFP	1.2	"	"	1,352 P	6,360 L*	
S-4	ACF/NCP	3.0	"	"	2,550 P	5,100 L*	
S-4	SMP/E	1.4	"	"	1,632 P	4,560 L*	
S-4	ISPF	2.3	"	"	680 P	1,152 L*	
D-1	Fortran IV	G	"	"	699 P	2,748 L*	
D-1	COBOL	2.4	"	"	-	4,380 L*	
S-4	ACF/SSP	3.0	"	"	432 P	1,104 L*	
S-4	ISPF/PDF	2.3	"	"	2,975 P	4,224 L*	
S-4	TSO/E	3.0	"	"	1,405 P	6,240 L*	

PROPRIETARY SOFTWARE INVENTORY

AUTOMATED INFORMATION AND TELECOMMUNICATIONS COUNCIL

Agency Name: Texas Education Agency

Agency Contact: P. H. Richert (512) 463-9767 (Telephone) 9/01/88 (Date Prepared)

SOFTWARE DESCRIPTION			HARDWARE SYSTEM DESCRIPTION	DATE ACQUIRED	TOTAL P/AMOUNT L/AMOUNT	ANNUAL M/AMOUNT L/AMOUNT	COMMENTS
CATEGORY /TYPE	PRODUCT NAME	VERSION NUMBER					
S-4	RACF	1.7	IBM 4381	1985	-	10,092 L*	*Lease amount includes
S-3	CICS	4.7	"	"	4,871 P	22,920 L*	maintenance charge
S-2	BMP	2.4	"	"	2,100 P	4,872 L*	
S-4	UCC-1	4.8	"	1983	16,500 P	4,225 M	
D-4	BOSCOE	5.4A *	"	1976	41,760 P	9,665 M	
D-4	ADR LIBRARIAN	3.4A	"	1985	21,760 P	5,000 M	
A-8	ADR ETC	3.0	"	1979	20,800 P	5,115 M	
S-4	SYNCSORT	2.5 **	"	1985	2,150 P	1,925 M	
D-3	MODEL 204	9.0	"	1981	120,000 P	15,000 M	
D-4	WORKSHOP 204	2.1	"	1985	30,000 P	6,000 M	

* We have release 5.5 but it isn't in production.
** We have release 3.0 but not yet installed.

PROPRIETARY SOFTWARE INVENTORY

AUTOMATED INFORMATION AND TELECOMMUNICATIONS COUNCIL

Agency Name: Texas Education Agency

Agency Contact: P. N. Rickert (512) 463-9747 (Telephone) 9-01-88 (Date Prepared)

SOFTWARE DESCRIPTION							
CATEGORY /TYPE	PRODUCT NAME	VERSION NUMBER	HARDWARE SYSTEM DESCRIPTION	DATE ACQUIRED	TOTAL P/AMOUNT L/AMOUNT	ANNUAL M/AMOUNT L/AMOUNT	COMMENTS
	M204/RACF Interface		IBM 4381				
	M204 Dictionary		"				
D-4	ACCESS 204	1.2	"	1985		6,000 M	
S-4	VTAM PTR SUPPORT	5.0	"	"		1,650 M	
S-4	FDR	5.0	"	"		2,000 M	
S-4	FATS	4.0	"	"		250 M	
D-4	C/A OPTIMIZER	5.0	"	"		6,240 M	
A-4	SAS	5.16	"	"		4,225 M	
A-9	SAS/GRAPH	5.18	"	"		3,000 M	
D-4	SAS/AF	5.18	"	"		2,500 M	
D-4	SAS/FSP	5.18	"	1986		2,500 M	

PROPRIETARY SOFTWARE INVENTORY

AUTOMATED INFORMATION AND TELECOMMUNICATIONS COUNCIL

Agency Name: Texas Education Agency

Agency Contact: P. H. Rickert (512) 463-9747 (Telephone) 9/01/88 (Date Prepared)

SOFTWARE DESCRIPTION							
CATEGORY /TYPE	PRODUCT NAME	VERSION NUMBER	HARDWARE SYSTEM DESCRIPTION	DATE ACQUIRED	TOTAL P/AMOUNT L/AMOUNT	ANNUAL M/AMOUNT L/AMOUNT	COMMENTS
A-6	SAS/ETS	5.18	IBM 4381	1986	"	2,500 M	
A-6	SAS/OR	5.18	"	1986	5,000 P	2,500 M	
A-9	SAS/CRT	5.18	"	1986	1,500 P	4,000 M	
D-3	TOTAL	6.3	"	1975	UNKNOWN	#	#Not under maintenance
A-1	OSCAR	9.0	"	1982	205,000	#	
S-1	CROSSTALK	3.5	IBM PC	6/86-8/87	3,792 P		
D-3	R:BASE SYS V	1.1	"	7/85-6/86	14,747 P		
D-3	DBASE III PLUS	1.1	"	6/86-10/86	1,025 P		
S-3	3270 EMULATION	3.0	"	6/86-4/87	13,631 P		
S-1	DOS	2.1-3.2	"	8/86-8/87	14,673 P		
S-3	PC NETWORK	1.0	"	8/85	2,014 P		

PROPRIETARY SOFTWARE INVENTORY

AUTOMATED INFORMATION AND TELECOMMUNICATIONS COUNCIL

Agency Name: Texas Education Agency

Agency Contact: P. B. Richard (512) 463-9747 (Telephone) 9/01/88 (Date Prepared)

SOFTWARE DESCRIPTION							
CATEGORY /TYPE	PRODUCT NAME	VERSION NUMBER	HARDWARE SYSTEM DESCRIPTION	DATE ACQUIRED	TOTAL P/AMOUNT L/AMOUNT	ANNUAL M/AMOUNT L/AMOUNT	COMMENTS
S-3	TOKEN RING NETBIOS	N/A	IBM PC	4/86-8/87	2,600 P		
S-3	LAN	1.1	"	4/86-8/87	9,504 P		
A-5	MULTIPLAN	3.0	"	4/84-9/86	7,332 P		
A-5	LOTUS 1-2-3	2.01	"	7/84-8/87	18,240 P		
A-6	SAS PC	6.02	"	6/87	-	900 L	
A-6	MICROSOFT CHART	2.0	"	4/86-5/87	2,835 P		
A-8	MICROSOFT WORD	3.1	"	8/84-8/87	52,500 P		
A-8	WORD PROOF II	1.0	"	8/85	2,025 P		
	PL1 Transient Lib.	5.1					
	NCI	2.2					
	VSAM Assist	4.0					

PROPRIETARY SOFTWARE INVENTORY

AUTOMATED INFORMATION AND TELECOMMUNICATIONS COUNCIL

Agency Name: Texas Education Agency

Agency Contact: P. H. Richert (512) 463-9747 (Telephone) 9/01/88 (Date Prepared)

SOFTWARE DESCRIPTION				HARDWARE SYSTEM DESCRIPTION	DATE ACQUIRED	TOTAL P/AMOUNT L/AMOUNT	ANNUAL M/AMOUNT L/AMOUNT	COMMENTS
CATEGORY /TYPE	PRODUCT NAME	VERSION NUMBER						
	CDSN	2.1.1	*					
	CDSN Display Manager	2.1.1	*					
	CDSN PCLX Feature	2.1.1	*					
	ICFRU	1.0						
	IBM Database 2	3.0						
	QMF	2.3						
	IDEAL	2.0						

* We have release 2.2.2 but not yet installed.

CC#	DIVISION	AT	XT	286 XT	MD ED	PS2	PS	CA	TOTAL # OF PCs	MAC	MODEM	PRINTERS: PROX	PROX LT	QUIET 8	5212 J	LJ +	LJ IIL	DIABLO	3270 R	3270 O	WORD	12 M	PLAS	RBASE
000	SBOE			1					1		1	1		1					1		1			
100	COMMISSIONER		2						2		POOL	1		1		1			2	1	2			1
101	INTERNAL AUDIT							1	1												1	1		
120	INVESTMENTS	2	3						5		2	1		1		1					1	4		
130	LEGAL SERVICES		2	2					4		POOL	4		2		1					4			1
		2	7	3	0	0	0	1	13	0	3	7	0	5	0	3	0	0	0	3	1	8	5	0	2
DEPUTY COMMISSIONER - EDUCATIONAL QUALITY																									
200	DC-EDUC QUALITY		1						1		POOL	1				1					1			
210	AC-ACCREDITATION		1						1			1		1		1					1			
220	ACCREDITATION		8					4	12		1	9		1		1		2			12			
250	AC-PROFESSIONAL DVLPT		2						2		1	2				1					2	1		1
251	TEACHER EDUCATION		1						1			1									1			
252	MGMT ASST/PERS DVLPT	1	1						2		1	2		1				1			2	1		2
		1	14	0	0	0	0	4	18	0	3	18	0	3	0	4	1	2	0	0	0	19	2	0	3
DEPUTY COMMISSIONER - CURRICULUM & PROGRAM DEVELOPMENT																									
300	DC-CURRIC & PROG DVLPT		1						1	1	POOL	1				1					1			
301	EDUCATIONAL TECHNOLOGY		1						1		1													
302	EXEMPLARY PROGRAMS		1				1		2			1		1				1			2	1		
310	AC-PROGRAM DVLPT		1						1			1		1							1			
311	PROGRAM PLANNING		1	1					2	1	1	2		1							2			
312	GIFTED & TALENTED		1						1	1		1		1							1			
320	SPECIAL PROGRAMS		2						2	2	1	1		1							2			
330	SPECIAL ED PROGRAMS		1					1	2		1	1						1			2		1	
331	SERVICES FOR DEAF		1						1			1									1	1	1	
341	ADULT & COMM EDUC		1						1	1	1	1		1							1			1
350	AC-CURRIC & INSTR		1						1			1									1			
360	EXTRACURRICULAR			1					1		1	1		1							1			1
370	GENERAL EDUCATION		4	5			1	2	12	1	2	8		2		1		2			12		2	2
380	VOC ED PROGRAMS		2						2		POOL	2		1							2			
		0	18	7	0	0	2	3	30	7	8	22	0	12	0	2	0	4	0	0	0	29	2	4	4
DEPUTY COMMISSIONER - FINANCE & COMPLIANCE																									
400	DC-FINANCE & COMPL		1	1		1			3		POOL	1						1		2	1	3	2		
400	COORD FOR HANDICAPPED		1						1			1		1						1		1			
401	AUDITS	1	2						3		1	2	1	1								3	1	1	3
402	EDUCATION SERVICE CTRS	1		1					2		1	1	1				1			2		2	1	1	1
410	AC-SPEC PROGRAMS FUNDING		1						1			1						1				1	1	1	
411	COMP/BILINGUAL/MIGRANT		5	1		2			8		1	3	1	1					1	1	1	8		3	2
412	SPECIAL EDUC FUNDING	1	2			1			4		1	1	2	2						1	1	4			2
413	VOC EDUC FUNDING		5						5		1	2			4							5	2		1
414	ADULT ED/EMPLY/TRAINING		1	1					2		2	1	1	1								2	1	1	1
420	AC-SUPPORT		1						1			1						1		1		1			
421	TEXTBOOKS		6	1				2	9		2	4						2	4	1	1	8	3	4	3
422	PROPRIETARY SCHOOLS	1	2						3			2		1		1						3		1	1
423	CERTIFICATION		2	1					3			3							2			3			
430	AC-ADMINISTRATION		1						1		1	1		1								1			
431	STATE FUNDING		1	1					2			1	1									2	2		
432	TRANSPORTATION		1						1			1										1			
433	DISCR FUNDING & GRANTS		2						2		1	2		1								2		2	
434	COMPLAINTS & ADMIN		1	1					2			2										2		1	1
435	SCHOOL LUNCH		1	1					2			1		1								2	1		
		4	36	9	0	4	0	2	55	0	11	31	7	10	4	1	1	5	7	8	4	55	14	15	15

CC#	DIVISION	AT	XT	286 XT	MO ED	PS2	PB	CA	TOTAL # OF PCs	MAC	HOME	PROXL	PQUIET	532 18	LJ+	LJIL	DIABL	370 R	WORD	1 2 3	PLAN	RBASE
DEPUTY COMMISSIONER - INTERNAL MANAGEMENT																						
800	DC-INTERNAL MANAGEMENT		2						2		1	2			1					2		
810	RESOURCE CENTER		3		1				4	4	1	3				1				4		1 2
820	PERSONNEL		2				2		4		1	2		1						2		
830	ACCOUNTING	1		1					2			1	1			2				2	2	
840	OFFICE SERVICES	1	3				4		8	2	1	4				1	1			4	2	
		2	10	1	1	0	6	0	20	6	4	12	1	2	0	1	0	4	1	0	0	14	2	3	2
DEPUTY COMMISSIONER - RESEARCH & INFORMATION																						
700	DC-RESEARCH & INFO	1	4						5	1	2	1				1				5	1	5	2	1	1
702	PEIMS	3	1	2		4		4	14		4	4			1	1	1			10	7	14	4	4	6
710	AC-ASSESSMENT & EVAL		3						3			1		1						3		3			
720	TEACHER ASSESSMENT		1						1			1		1		1				1		1			
725	STUDENT ASSESSMENT	1	1						2							1						2		1	
728	PROGRAM EVALUATION		1	1					2			2								2	2	2		2	
740	AC-POLICY COORDINATION		4						4		1	2				1				3		4	1	1	
741	PUBLIC INFORMATION		2	1					3	1	2	3		1						1		3			
742	RESOURCE PLANNING		2					8	10	2	1	1	1				2			2	1	10	8	2	
750	BUDGET	3							3		1					1	1			3	1		3		
770	AC-INFORMATION SYSTEMS			1				1	2			1								2	2	2	1	1	1
771	REPORTS MANAGEMENT		2						2	1	1						1			2	2	2	1	2	1
772	TECHNICAL SUPPORT	1	1						2		2	2								2	2				
775	INFORMATION CENTER	2	1	3		3		5	14		6	10	1	1			2	1		11	11	14	14	5	8
775	IC CLASSROOM		2	4				1	7		4	5	1	1			1			6	6	7	7	7	7
		11	25	12	0	7	0	18	74	5	24	33	3	5	0	5	7	4	0	53	35	69	41	26	25
	AGENCY TOTALS	20	110	32	1	11	8	28	211	18	53	121	11	37	4	16	9	19	8	85	40	195	86	48	31

LAPTOP COMPUTERS

CC#	DIVISION	TOTAL LAP-TOPS	HOME	PROXL	PQUIET	532 18	LJ+	LJIL	DIABL	370 R	WORD	1 2 3	PLAN	RBASE
220	ACCREDITATION	7	4	4							7		3	
320	SPECIAL PROGRAMS	2									2			
401	AUDITS	7	6	6							7		1	
430	AC-ADMINISTRATION	1	1	1							1			
700	DC-RESEARCH & INFO	3	2	1							3		2	
740	AC-POLICY COORDINATION	1	1	1										
771	REPORTS MANAGEMENT	1	1	1										
773	SYSTEMS DVLPT/MAINT	3	2	1							3	3		
775	INFORMATION CENTER	1	1	1							1	1		
		26	18	16	0	0	0	0	0	0	0	0	24	4	6	0

CC#	DIVISION	AT	XT	286 XT	NO HD	PS2	PB	CA	TOTAL # OF PCs	MAC	HOZ DOM	PRINTERS: PROX	PRINTERS: QUIET LJ	PRINTERS: 5218	PRINTERS: LJ+	PRINTERS: LJ II	PRINTERS: DIABLO	3270	WORD	123	PLAN	RBASE

ABBREVIATIONS

MICROCOMPUTERS

AT	IBM AT
XT	IBM XT
286 XT	IBM XT 286
NO HD	IBM XT with no hard disk
PS2	IBM PS/2 MODEL 50
PB	PACKARD BELL (state contract)
CA	COMPUADD (state contract)
MAC	MACINTOSH

PRINTERS

PRO	IBM PROPRINTER (dot matrix)
PROXL	IBM PROPRINTER XL (wide carriage dot matrix)
QUIET	IBM QUIETWRITER (letter quality)
5218	IBM 5218 (daisy wheel)
LJ	HEWLETT PACKARD LASERJET
LJ+	HEWLETT PACKARD LASERJET+ (downloadable soft fonts)
LJ II	HEWLETT PACKARD LASERJET SERIES II (downloadable soft fonts)
DIABLO	DIABLO (daisy wheel)

NETWORK

TR	TOKEN RING NETWORK
3270	3270 (mainframe) EMULATION

SOFTWARE

WORD	MICROSOFT WORD
123	LOTUS 1-2-3
PLAN	MICROSOFT MULTIPLAN
RBASE	MICRORIM R:BASE SYSTEM V

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: TXB - TEXTBOOK SYSTEM

PURPOSE: Automated support for the requisition, distribution, inventory, and payment of State-owned textbooks.

ABSTRACT:

The Textbook System provides automated support for processing and maintaining records for the requisition, distribution, inventory, and payment of State-owned textbooks for regular students and blind and visually handicapped students.

Data is entered from multiple textbook documents by the key entry staff with some CADE program edit and verification. The transactions are stored on disk (and CADE save tape) and processed periodically. Data collection and processing is cyclical. During processing, the system updates textbook records and prints various reports and forms for the Textbook division.

The system generates textbook order approval reports, hard copy orders and order tapes, freight pick-up notices, sales reports, verification and summary reports, preliminary new textbook needs estimates, and inventory statements for school districts and the State depository.

Yearly, the textbook files are archived to tape. The textbook system is primarily a batch system and is processed as such except for the on-line invoice adjustment and SAS reporting routines.

Those depositories that have the automated capabilities receive all order runs on magnetic tape as well as in hard copy form. Twice a year, participating "district textbook system" Education Service Centers receive textbook title data on magnetic tape. This data is used in the textbook system services provided by ESC's to participating school districts.

Average yearly batch input volume is approximately 1,430,000 transactions; average yearly print volume is approximately 12.2M lines.

SOURCE: Developed in-house

STATUS: In production

YEAR INSTALLED: 1963 (TBI, Univac); 1976 (TBI, IBM); 1978 (TBB); 1985 (TXB); 1987 (TXU)

CURRENT OPERATING ENVIRONMENT: Batch, On-line, TOTAL, M204, COBOL, GEMS, GES, SAS

PRIMARY USERS: Textbooks Division

BENEFITS REALIZED: The textbook system has allowed the Agency to handle and maintain an inventory of all State-owned textbooks, process requisitions from approximately 1,100 school districts in a more timely manner, order textbooks from State and private depositories or Braille and large-type sources, and verify accounts payable for textbook order and freight bills to prevent unauthorized expenditures.

EFFECTIVENESS (CURRENT): The automated support for the textbook division functions does not adequately address the high transaction volume of records or the accountability requirements now incurred. Agency efforts to maintain this system involve increasing cost prohibitive expenditures.

FUTURE PLANS: Development of a new State Textbook Distribution and Accounting System was undertaken in September of 1987 and implementation of the new system is expected to be completed by the end of 1989.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: CRT TEACHER CERTIFICATION

PURPOSE: Automated support for the processing of teacher and paraprofessional certification requests.

ABSTRACT:

The certification system automates the process of producing teaching certificates. There are several types of certificates and permits, each with a unique set of requirements. Each Texas applicant for certification must apply through a Texas teacher university, and each school can only recommend certification in the subject areas for which it has specific approval from the Agency. The processing of in-state certificates is automated while out-of-state applications must still be individually approved by an analyst.

The certification system is a batch COBOL system that processes against a generation sequential file called the work-in-progress (WIP) file. Completed (WIP) files are transferred to the certification master file twice a year. A hard copy file folder is also currently maintained on each certification applicant which contains all correspondence, worksheets, and other associated material. This folder can be traced to the automated files by batch number

A small subsystem has been written in MODEL 204 which produces a tape of all new applicants and is forwarded to the Department of Public Safety for a felony check.

Average yearly batch input transaction volume is approximately 311,000 records.

SOURCE: Developed in-house

STATUS: In production

YEAR INSTALLED: 1972

CURRENT OPERATING ENVIRONMENT: Batch, COBOL, GES, ROSCOE, M204

PRIMARY USERS: Certification Division

BENEFITS REALIZED: The primary benefits received from this system are the automation of in-state certification requests that allows the certification division to insure that applicants have passed the necessary university courses and the TECAT and/or EXCET exams before receiving certification.

EFFECTIVENESS (CURRENT): The automated support for the certification division functions no longer adequately addresses the high transaction volume incurred by the operation or the need for rapid access to application status information.

FUTURE PLANS: Development of a new on-line certification system is scheduled for 1988. An evaluation of the impact of recent legislation on the certification process is to be performed in 1988. As a result of new legislation, it is expected that significant additional systems development will be required in the 1988-1990 time frame.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: DCS - DEPOSITORY CONTRACT SYSTEM

PURPOSE: Supports the monitoring of depository contract, bank, and security information.

ABSTRACT:

The Depository Contract System maintains information on the depository contracts, depository banks, and securities of the Local Education Agencies (LEA's) and Education Service Centers (ESC's).

A new depository contract must be submitted by the LEA's and ESC's for each biennium. The DCS contract file is updated with all contract information, including the bank routing number. Further details on each individual bank are maintained by routing number on the DCS bank file. The depository bank must provide TEA with copies of safe-keeping receipts and releases of pledges. These are recorded on the DCS securities file.

The Audit Division controls all maintenance of the DCS files. The Financial Management System (FMS) accesses the DCS contract and bank files for bank data needed to produce warrant requests and comptroller electronic funds transfer tapes.

Average yearly batch input transaction volume is approximately 21,500 records.

SOURCE: Developed in-house

STATUS: In production

YEAR INSTALLED: 1982

CURRENT OPERATING ENVIRONMENT: Batch, COBOL, SAS

PRIMARY USERS: Audit Division and Accounting Division

BENEFITS REALIZED: This automated system has allowed the Audit Division greater efficiency and timeliness for contacting LEA's and/or banks on reported maturities of securities, expired contracts, or when deposits are found to greater that securities pledged. The DCS system provides this information through automated reports.

EFFECTIVENESS (CURRENT): This system is meeting the needs for the particular function that it addresses, however, with the re-development of other major systems this system will become obsolete.

FUTURE PLANS: A study of this system will be undertaken as resources allow to determine if it should be re-developed, transferred to the new technological environment, or deleted.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: FMS - FINANCIAL MANAGEMENT SYSTEM

PURPOSE: Automates and integrates TEA accounting functions.

ABSTRACT:

The Financial Management System is an integrated system in which the major Agency administrative functions (budgetary control, fund accounting, and fiscal grants management) are compiled, operated, and controlled. These functions are highly interdependent. In the accounting process, transactions, and records interact to the degree necessary to provide information for all major administrative functions.

Input transactions may be keyed from documents, generated by FMS subsystems or generated by other TEA systems with an FMS interface.

FMS is updated daily through batch processing. This daily run updates the general ledger and subsidiary ledgers and produces a series of reports. Daily backup is maintained to insure accounting integrity. The input transactions, after initial validation, flow through all steps of the FMS system (editing, record breakdown, financial editing, and updating) as appropriate for each transaction type. The daily run may also produce warrant as authorized for payment to LEA's, possibly accompanied by a Comptroller tape and an electronic fund transfer tape.

Reports are also generated on a monthly/quarterly/yearly basis. Other reports are available and may be printed for most of the subsidiary ledgers.

Average yearly batch input transaction volume is approximately 576,000 records.

SOURCE: Developed in-house

STATUS: In production

YEAR INSTALLED: 1980

CURRENT OPERATING ENVIRONMENT: Batch, COBOL, SAS, M204

PRIMARY USERS: Accounting Division and Budget Division

BENEFITS REALIZED: The implementation of this integrated financial management system has allowed greater controls over Agency administrative functions to insure that (1) errors are detected and the cause determined, (2) all transactions are processed in accordance with GAAP accounting principles, and (3) human error is minimized.

EFFECTIVENESS (CURRENT): The current operation of a single system to support all three major administrative functions has created an environment that lacks the flexibility and scope to adequately meet Agency needs.

FUTURE PLANS: A comprehensive review of the financial management process by the Agency, to include data required from LEA's and the methods of receipt, is to be initiated in 1990. Requirements resulting from this study will form the basis for installation of systems and procedures effectively integrating and supporting the overall financial management function of the Agency. Development is planned for the 1990-91 time frame.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: STA - STANDARD APPLICATION SYSTEM

PURPOSE: Supports the generation of cash advances to LEAs for federal programs.

ABSTRACT:

The Standard Application System provides automated support for generation of monthly cash advances to LEA's for federal programs.

Source data originates from the hard-copy Notice of Grant Awards submitted by program divisions to the Accounting Division. Keyed input is processed through STA, updating payment schedules on the STA Master file, and ultimately providing the input for the creation of encumbrance transactions for processing by the Financial Management System.

The Standard Application System generates monthly cash transactions on request (for use in updating payment schedules). The STA System can also generate advance payment transactions for input to FMS.

Project expenditure reports are submitted to accounting daily for keying and input to FMS. Transactions generated update FMS expenditures, and update the STA expenditure adjustment fields on the STA master file.

Average yearly batch input transaction volume is approximately 228,000 records.

SOURCE: Developed in-house

STATUS: In production

YEAR INSTALLED: 1983

CURRENT OPERATING ENVIRONMENT: Batch, COBOL, GES

PRIMARY USERS: Accounting Division,
Compensatory/Bilingual/Migrant/Funding and Compliance Division, and
Special Education Funding and Compliance Division.

BENEFITS REALIZED: This batch system has allowed the Accounting and Program divisions greater efficiency and effectiveness in tracking the flow of federal funds to LEA's and to automate payment scheduling and project encumbrances.

EFFECTIVENESS (CURRENT): This batch system does not support the user divisions as they have only read access to all records and the process is still heavily paper intensive with much duplication of effort in the user divisions.

FUTURE PLANS: The user division of the STA system are currently conducting a study for the development of an operational plan projected for completion in 1989 with development of a new system to begin as funding and scheduling permits.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: FFP - FEDERAL FUNDING PROGRAM

PURPOSE: To Disburse monies to LEA's applying for federal grants through ECIA Chapter 1, ECIA Chapter 2, and EESA Title II programs.

ABSTRACT:

The Federal Funding Program system coordinates and generates reports for the following programs: (1) Chapter 1 (ECIA) formula students including migrant students, (2) Chapter 2 (ECIA), and (3) Title II (EESA). Data is accumulated as directed by the Office of Compensatory Education. A new master file for each project is created annually which is updated as necessary until a maximum entitlement has been calculated and ultimated allocated to each LEA. The reports from this system are generated twice each fiscal year.

The reports are organized so that they may reflect singular records (i.e., totals by region). Bank cards are formatted and mailed to each LEA or region, providing entitlement information.

Special runs of this system are also executed as directed each year. These special runs report the special populations consolidated data.

This data that is used in determining LEA allocations reads records (disadvantaged student counts) from the Special Education, Superintendent's Annual Report and Bilingual Education systems.

SOURCE: Developed in-house

STATUS: Active at user's request for program initiation

YEAR INSTALLED: 1970

CURRENT OPERATING ENVIRONMENT: Batch, COBOL, SAS, GES

PRIMARY USERS: Compensatory/Bilingual/Migrant Funding and Compliance Division

BENEFITS REALIZED: Greater efficiency and "turn around" time from entitlement to allotment to actually getting the funds to the LEA's.

EFFECTIVENESS (CURRENT): This batch program has reached the end of it's useful life cycle because of the legislation and redirection of the Agency.

FUTURE PLANS: The complete installation of PEIMS should allow this system to be cancelled with similar data being extracted directly from the PEIMS "data base".

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: TRN - TRANSPORTATION

PURPOSE: Maintain data regarding the transportation programs operated by each district.

ABSTRACT:

The Transportation System maintains records of all approved bus routes, school buses, certified bus drivers, and operating costs for each district. It also calculates the allotments for each district's transportation programs and provides this information to the foundation school program system.

In September 1979, the basis for transportation allocation was changed to a "Linear Density" formula, which is an allocation-per-mile formula. This automated formula calculates the average number of regular eligible pupils transported daily, divided by the approved daily route miles traveled by the respective transportation systems to provide the proper allocation.

The actual cost-per-mile figure is calculated annually from LEA reports that reflect the actual maintenance and operation costs of their transportation program.

Average yearly batch input transaction volume is approximately 116,000 records.

SOURCE: Developed in-house

STATUS: In production

YEAR INSTALLED: 1977

CURRENT OPERATING ENVIRONMENT: Batch, GES, COBOL, SAS

PRIMARY USERS: Transportation Division

BENEFITS REALIZED: The automation of the above transportation functions allow payments to be made to LEA's expeditiously and allows Agency personnel to maintain necessary control of these funds.

EFFECTIVENESS (CURRENT): This system is no longer meeting the needs of the users in a timely manner because of the lack of on-line functions.

FUTURE PLANS: This system will be studied for re-development as resources are available. This study will attempt to coincide with the study of the financial management system.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: NSL - NATIONAL SCHOOL LUNCH SYSTEM

PURPOSE: Support the monthly reimbursement of school districts with federal funds for the lunch and breakfast programs.

ABSTRACT:

Data is entered from the reimbursement claim for the School Lunch and Breakfast Programs form. These forms are submitted to the Agency monthly by each participating LEA.

A monthly claims master file and history file are updated when the input documents are processed. The system calculates and creates the necessary accounting transactions for the warrant request processing by the FMS system.

In addition to monthly reimbursements, LEA's also may receive special payments through this system.

A district profile and state totals report is produced monthly with year-to-date data.

Average yearly batch input transaction volume is approximately 40,000 records.

SOURCE: Developed in-house

STATUS: In production

YEAR INSTALLED: 1976-77

CURRENT OPERATING ENVIRONMENT: Batch, COBOL, GES

PRIMARY USERS: School Lunch Division and Accounting Division

BENEFITS REALIZED: This system has allowed the Agency to expedite, to a degree, the process of approving and making payments to those local school districts who qualify for those federal funds.

EFFECTIVENESS (CURRENT): This system is no longer adequately meeting the needs of the Agency because of the lack of on-line functions that would allow the users to make timely adjustments and speed the payment process.

FUTURE PLANS: This system will be studied for re-development as resources become available.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: FSP FOUNDATION SCHOOL PROGRAM

PURPOSE: To assist the Division of State Funding in the computation of school district entitlements to and the distribution to the LEA's of state funds under the Foundation School Program as provided by the Texas Legislature.

ABSTRACT:

The FSP assists the State Funding Division in computing the amount of money the state should pay school districts. Basically, the amount of money paid is determined by formulas set forth by the Texas Legislature and the State Board of Education.

Payments are made approximately once a month. The FSP system computes the percentage payment to be made to LEA's, records this payment to appropriate data files, and prints control reports of all payments computed. The FSP system also generates records to be fed into the FMS system.

Incremental backup of FSP data files is provided by procedures within the FSP programs that create dumps automatically when the system is processed.

All data files and most programs within the FSP system are year dependent. The system is initialized each year by creation of new year's data base files via a ROLLOVER of the previous year's files. All processing except for the yearly rollover are initiated by the user division through the User Job System (UJS).

Average yearly batch input transaction volume is approximately 500,000 records.

SOURCE: Developed in-house

STATUS: In production

YEAR INSTALLED: 1977

CURRENT OPERATING ENVIRONMENT: Batch, TOTAL, GES, COBOL, Microfiche

PRIMARY USERS: State Funding Division

BENEFITS REALIZED: This system has allowed the Agency to make timely payments to local school districts based on the new funding formulas created with the passage of House Bill 72.

EFFECTIVENESS (CURRENT): This system no longer meets the processing requirements of the Agency. The system does not interface well with the financial management system and is not efficient.

FUTURE PLANS: This system will be maintained for archival and audit requirements, however, as PEIMS becomes fully operational this system will be replaced by components of the PEIMS systems.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: VIS - SCHOOL VISIT SYSTEM

PURPOSE: To coordinate visits to school by Compliance Monitoring personnel, Special Education Division, Vocational Education Division, Special Populations Division, Accreditation Division, and the Audit Division.

ABSTRACT:

Scheduled visits are entered into a M204 screen by the above divisions along with pertinent information concerning these visits. Discrepancies found during these visits are also entered to this system with pertinent follow-up information included. The data is maintained in M204. On-line inquiries and paper reports can be processed using this system.

SOURCE: Developed in-house

STATUS: In production

YEAR INSTALLED: 1981-82

CURRENT OPERATING ENVIRONMENT: Batch, M204

PRIMARY USERS: Compliance Monitoring personnel, Accreditation Division and Audits Division

BENEFITS REALIZED: This system has allowed increased coordination between the Compliance and Accreditation divisions creating more effective and efficient use of Agency resources.

EFFECTIVENESS (CURRENT): This system does not adequately address the requirements of the user divisions since the Agency has been undergoing radical changes.

FUTURE PLANS: This system will be replaced by components of the PEIMS system as it becomes fully operational.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: AAS - STOCK RECORDS AND CONSOLIDATED APPLICATION FOR FEDERAL ASSISTANCE LEDGER

PURPOSE: Supports record maintenance of Agency-wide direct supplies and produces a set of monthly payment ledgers to consolidate federally funded programs.

ABSTRACT:

The Agency Accounting System was a full function accounting system supporting the Agency accounting functions before the installation of FMS. Now the AAS system provides the Stock Records function and the Consolidated Federal Programs Ledger function.

STOCK RECORDS SYSTEM:

The stock records part of the Stock Records System automates the record maintenance of direct supplies such as paper stock and other office supplies throughout the Agency.

The Stock Records System is run weekly and produces as report listing paper and office stock average prices, extensions, quantities, etc.

The AAS System also maintains information on all vendors that the FMS system accesses for vendor name information, etc.

CONSOLIDATED FEDERAL PROGRAMS LEDGER:

This is a small system that reads the FMS monthly transaction tape and the FMS Contract Budget File extracting the necessary transactions for the year-to-date ledgers. There are four active years for these ledgers. The system reads and updates the CAFA history file during this process.

These ledgers are microfiched to be used in several divisions.

SOURCE: Developed in-house

STATUS: In production

YEAR INSTALLED: Late 1960's - Early 1970's

CURRENT OPERATING ENVIRONMENT: Batch, Cobol

PRIMARY USERS: Accounting Division, Compensatory/Bilingual/Migrant Funding and Compliance Division, Special Education Funding and Compliance Division

BENEFITS RECEIVED: The automation of this function in the early 1970's has allowed Agency users to maintain timely stock information as well as fulfilling federal requirements.

EFFECTIVENESS (CURRENT): This batch system no longer adequately reflects the need for on-line information to increase efficiency and cost savings.

FUTURE PLANS: This system will undergo review and redevelopment in conjunction with the review and redevelopment of the Financial Management System.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: VFA - VOCATIONAL FEDERAL ALLOCATIONS

PURPOSE: Allocates federal funds to the school districts for vocational education.

ABSTRACT:

The Vocational Federal Allocations System automates the allocation of federal funds to be used for vocational education in the school districts. The system is run one time each year in mid-winter.

The system computes the allocations based on the following:

1) Vocational education enrollments for handicapped, disadvantaged, and Limited English Proficiency (LEP), as well as total vocational education district enrollments

2) Low Income Family (LIF) from free and reduced lunch participants

3) Economically depressed counties (keyed from data supplied by the user)

Reports are generated for user approval as each input is added to the SAS data base and the formulas are applied.

The final output is a letter to each district reflecting the allocation fee for that district and how it is to be applied.

SOURCE: Developed in-house

STATUS: Not productional (The system is run one time a year and has always required substantial redevelopment from year to year).

YEAR INSTALLED: 1980

CURRENT OPERATING ENVIRONMENT: SAS

PRIMARY USERS: Vocational Education Funding and Compliance Division

BENEFITS REALIZED: This system has allowed the user divisions to report to the local school districts the allocation fee that will be applied to them

EFFECTIVENESS (CURRENT): This system has always taken a great amount of programmer intervention and increasing associated costs. It is not a flexible system and does not adequately address the needs of the Agency.

FUTURE PLANS: The full implementation of PEIMS should allow the Agency to archive this system. PEIMS "data base" should replace this system.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: GED - GENERAL EDUCATION DEVELOPMENT

PURPOSE: Issue GED certificates.

ABSTRACT:

The GED system issues GED certificates, prints duplicate certificates upon request, and maintains a record of people who have been issued certificates.

The system also produces a weekly transcript manuscript, a scoreless microfiche for public distribution, monthly test center statistics, updates test center information, and produces statistics for federal reporting.

Average yearly batch input transaction volume is 230,000 records.

SOURCE: Developed in-house

STATUS: In production

YEAR INSTALLED: 1973

CURRENT OPERATING ENVIRONMENT: Batch, COBOL, SAS, FICHE

PRIMARY USERS: General Education Division

BENEFITS REALIZED: This system has allowed the General Education Division to automate the process of producing GED certificates and maintaining accurate lists for reporting purposes.

EFFECTIVENESS (CURRENT): This system is at the end of its useful life cycle. It no longer meets Agency needs for timely reporting with its antiquated batch processing method.

FUTURE PLANS: This system will be reviewed for appropriate development action as resources become available.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: OSC - OSCARS (INVESTMENT SYSTEM)

PURPOSE: To track stock and bond investments for the permanent school fund.

ABSTRACT:

OSCARS (on-line securities control, analysis and reporting system) is a comprehensive securities management and accounting system designed to serve a variety of users. It is an on-line system providing cash control, portfolio analysis and evaluation, and cash flow projections. It provides over 100 standard reports and displays, and allows the user to produce special reports from the data base using the EXTRACTO report writer language, or COBOL and SAS programs to produce reports from the extract file.

The Agency Office of Investments uses OSCARS to track the stock and bond investments of the permanent school fund portfolio.

There is a small subsystem in GENER/OL (written in-house) which tracks the monthly stock purchasing program approved by the Finance and Programs Committee of the State Board of Education.

There is another small subsystem developed in-house that uses GEMS maintenance to maintain a list of certificate numbers of the actual stock and bond documents that are stored in the state treasury.

There are also several programs written at TEA in SAS and COBOL that extract data from the securities master file for reporting.

SOURCE: Information Systems of America

STATUS: In Production

YEAR INSTALLED: 1982

CURRENT OPERATING ENVIRONMENT: Batch, CICS, COBOL, SAS

PRIMARY USERS: Investments Office

BENEFITS REALIZED: This proprietary package has allowed the Agency to have access to an on-line financial securities control, analysis and reporting system.

EFFECTIVENESS (CURRENT): The particular structure of the Agency investment portfolios is no longer effectively or efficiently supported by the OSCARS system.

FUTURE PLANS: An evaluation of system options to meet projected needs is to be performed in 1988 with necessary development currently planned for the 1990-91 time frame.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: HRM - HUMAN RESOURCE MANAGEMENT

PURPOSE: Maintain on-line Personnel Data and Leave Accounting.

ABSTRACT:

The HRM system is a Model 204 system limited on-line personnel data and a complete on-line Leave Accounting System.

Personnel Functions:

The personnel data of the HRM System is maintained from the remnants of the EDS system, specifically, the Personnel History and Position budget files with supplementary data provided by terminal input. The personnel history file provides employee specific data and the budget file provides employment data. The supplementary input provides data not available from the EDS system, such as address, TRS name, handicap and veterans code.

The Leave Accounting System is a transactional based system, providing the following:

. Documents all employee absences
. Maintains employee leave balances for: Annual, Sick, Comp, and Overtime
. Produces monthly leave statements for employees
. Accrues monthly annual and sick leave earnings
. Records special leave taken and approved
. Records comp and overtime leave worked
. Provides reports of carry-over leave lost.

SOURCE: Developed in-house

STATUS: In production

YEAR INSTALLED: 1986

CURRENT OPERATING ENVIRONMENT: On-line M204, SAS, GES

PRIMARY USERS: Personnel Division, and Timekeepers in all divisions

BENEFITS REALIZED: The use of this system has allowed the Agency to maintain accurate and timely personnel information.

EFFECTIVENESS (CURRENTLY): This system has met Agency needs to date, however, the language in which it was written will not be supported past the next biennium.

FUTURE PLANS: This system will be reviewed to determine if it should be transferred to the new data base technology, re-designed under the new technology or replaced by a new system as resources are available.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: EDS - PAYROLL SYSTEM

PURPOSE: Interface with the SP&GSC payroll system to produce supplemental payroll reports and update the Agency budget file.

ABSTRACT:

The EDS system consists of four parts: maintenance of a Personnel History file, maintenance of Budget file, maintenance of Group Insurance data, and Interfacing State Purchasing Payroll runs to FMS.

The Personnel History supports personnel functions of staff levels, EEOC reporting, and maintaining status changes (i.e., promotions, terminations, new hires, etc.).

The Budget is used to maintain position funding details in support of the FMS divisional budget for salaries, longevity, and fringe liabilities.

The Insurance file is used to provide coverage information.

The Payroll interface passes payroll expenditures to FMS and produces reports and tapes needed by TRS.

Average yearly batch input transaction volume is 43,000 records.

SOURCE: Developed in-house

STATUS: In production

YEAR INSTALLED: 1971

CURRENT OPERATING ENVIRONMENT: Batch, ROSCOE, SAS, COBOL

PRIMARY USERS: Payroll Section, Budget Division, and Personnel Division

BENEFITS REALIZED: This system has allowed the Agency to automate the payroll procedures and provide timely information for use by the Comptroller's office for the processing of payroll records.

EFFECTIVENESS (CURRENT): This system has outlived its useful life cycle and no longer adequately supports the needs of the Agency without personnel intensive efforts to keep the system operational.

FUTURE PLANS: This system will be reviewed in conjunction with the review of the financial management system for appropriate action.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: JTS - JOB TRACKING SYSTEM

PURPOSE: Maintains records of Information Systems Data Services Requests and their status.

ABSTRACT:

The Job Tracking System maintains a record of Data Services Requests received and completed. Facilities are also provided for sub-dividing these requests into the steps required to complete the requests.

The system provides Daily, Monthly, and Year-to-Date reports to identify requests received, requests in process, and requests completed.

SOURCE: Developed in-house

STATUS: Production

YEAR INSTALLED: 1983, major modifications - 1985

CURRENT OPERATING ENVIRONMENT: Batch, M204, GES

PRIMARY USERS: Mainframe Applications Systems Division

BENEFITS REALIZED: This system has allowed the Information Systems Office to more effectively and efficiently manage and control automated development.

EFFECTIVENESS (CURRENT): This re-designed system adequately supports the Office of Information Systems.

FUTURE PLANS: This system will be reviewed for appropriate action, translation to the new data base, re-development, or replacement as resources are available.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: DST - DISTRICT DATA BASE

PURPOSE: Maintain district database/publish Texas School Directory.

ABSTRACT:

The district database consists of the following seven total files:

DST1 - County Master
DST2 - County/District Link
DST3 - District Master
DST4 - District/Campus Link
DST5 - Campus Master
DST6 - Officer Link
DST7 - Officer Name file.

These files are the Agency's master list of data about the county districts and campuses. This data is used by every part of the Agency for such things as mailing labels, bank codes for payments, accreditation, etc.

The DST system itself loads data from the turnaround document into these files, and then keeps the data up-to-date throughout the year. The other major function of this system is to produce the tapes for the Texas School Directory.

There are two M204 files which are subsets of DST3 and DST5. They are: DSTD - District, DSTC - Campus.

SOURCE: Developed in-house

STATUS: In production

YEAR INSTALLED: 1960

CURRENT OPERATING ENVIRONMENT: TOTAL, GMS, M204, COBOL, GES, SAS

PRIMARY USERS: Data control and AMS use the DST system. The entire agency uses the data.

BENEFITS REALIZED: This system has allowed the Agency to maintain a central authoritative source of information containing vital statistics on local school districts for use by the Agency and others.

EFFECTIVENESS (CURRENT): This system is antiquated and has exceeded its useful life cycle to meet the needs of the Agency.

FUTURE PLANS: This system will be replaced by the PEIMS system as it becomes fully operational.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SOFTWARE

SYSTEM TITLE: SPE - SPECIAL EDUCATION DATA

PURPOSE: Collection of data of students who receive special services and allocation of federal funds to local education agencies (LEAs).

ABSTRACT:

This is an annual collection of data on handicapped students and the services provided by the state and federal government. Reports are collected on handicapped students through 21 years of age receiving special education services in each school district through P.L. 94-142. Students are listed by age and handicap condition in accordance with 19 TAC 89.211 and 89.234. The same guidelines apply to deaf/blind in accordance to laws and governing rules as APH and federal regulations. This student data is then used to allocate federal funds by formula to LEAs.

SOURCE: Developed in-house

STATUS: In production

YEAR INSTALLED: 1970

CURRENT OPERATING ENVIRONMENT: GES, COBOL, GMS, SAS

PRIMARY USERS: Special Education Division

BENEFITS REALIZED: This system has allowed the Agency to automate the special education data received from the local school districts to effectively allocate the federal funds to the appropriate schools.

EFFECTIVENESS (CURRENT): This system has now reached the end of its effective life cycle and no longer adequately meets the processing requirements of the Agency.

FUTURE PLANS: This system will be reviewed for appropriate action, translation, re-development, or replacement as the resources are available.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: AUD - DISTRICT INDEPENDENT AUDIT

PURPOSE: Automates the correction process of the annual Financial and Compliance Report from each school district.

ABSTRACT:

The AUD system was developed to provide a collection point of financial data from local education agencies (LEA's) needed to support federal reporting requirements. Federal law requires an accurate accounting of expenditures for federally funded programs. This information is communicated by the LEAs on annual financial reports which must be prepared by an independent auditor. These reports are schedules which conform to the TEA Bulletin 679 Accounting Codes. The audit system captures and validates this data. Extractions are then provided to various divisions to assist them in preparation of their federal reports.

SOURCE: Developed in-house

STATUS: In Production

YEAR INSTALLED: 1983

CURRENT OPERATING ENVIRONMENT: M204 User Language, M204

PRIMARY USERS: Audit Division

BENEFITS REALIZED: This system has allowed the Agency to expedite the procedures for validating local school district budget and expenditure information.

EFFECTIVENESS (CURRENT): This system has met the audit requirements of the Agency to date but is written in a language that will not be supported past the next biennium.

FUTURE PLANS: This system will be reviewed for appropriate action, translation, re-development, or replacement as PEIMS becomes fully operational and resources are available.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SOFTWARE

SYSTEM TITLE: BUD - DISTRICT OFFICIAL BUDGET

PURPOSE: Automates the correction process of the Official Budget for Texas Public Schools

ABSTRACT:

The BUD system is a scaled-down version of the AUD system maintaining anticipated income and expenditures opposed to actual. This data is used to provide data for federal reports which are reviewed for compliance with federal guidelines for government supported grants. The Texas Education Code requires each local education agency to submit an Official Budget.

SOURCE: Developed in-house

STATUS: In production

YEAR INSTALLED: 1982-1993

CURRENT OPERATING ENVIRONMENT: M204 User Language, M204

PRIMARY USERS: Audit Division

BENEFITS REALIZED: This system has allowed the Agency to maintain a summary of school district budget information for timely use by the Audit Division.

EFFECTIVENESS (CURRENT): This system has met the needs of the Agency to date but is written in a language that will not be supported past the next biennium.

FUTURE PLANS: This system has been replaced by the PEIMS initial implementation that collected budget information from all local school districts.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SOFTWARE

SYSTEM TITLE: IDR - INDIRECT COST RATE

PURPOSE: To calculate indirect cost rates for each school district.

ABSTRACT:

The indirect cost rate is used to determine the percentage of allowable general administrative expenses and fixed charges for grant or contract.

This system automates the processing of the Indirect Cost Rate Application for Texas School Districts for the Three-Year Period 19XX-19XX.

The initial file load is a COBOL edit process resulting in a VSAM file. The correction process is on-line using CICS-GENER/OL.

A restricted and non-restricted indirect cost rate is calculated for each district submitting an application.

SOURCE: Developed in-house

STATUS: This system is run only every three years.

YEAR INSTALLED: 1984

CURRENT OPERATING ENVIRONMENT: CICS, GENER/OL, SAS, COBOL, GES

PRIMARY USERS: Discretionary Funding Division and all divisions using federal grants.

BENEFITS REALIZED: This system has allowed the Agency to automate the process of calculating indirect cost rates for federal funding.

EFFECTIVENESS (CURRENT): This system has met the needs of the Agency to date when it has been run.

FUTURE PLANS: This system will be reviewed for appropriate action, translation to the new data base language, re-development, or replacement as resources are available.

ATTACHMENT 6
CURRENT OPERATING SUPPORT SOFTWARE

SYSTEM TITLE: SAR - SUPERINTENDENT'S ANNUAL REPORT
SAR I
SAR II
SAR III
SAR PUPIL ATTENDANCE AND CONTACT HOURS

PURPOSE: Collection of student data.

ABSTRACT:

This is an annual collection of student data. It consists of Part I, the collection of schedule of age/grade distribution; Part II, a table of graduates with a breakdown of ethnic groups, and a table of the summary of general education curriculum offerings with sections and total memberships; Part III handles the special education students and the handicapped services received by age/grade. Pupil attendance and contact hours are reported biannually for which attendance and student/teacher contact are reported with regular and special education. This data is accessed by many divisions throughout the Agency for a variety of statistical and general reporting requirements.

SOURCE: Developed in-house

STATUS: In production

YEAR INSTALLED: 1960+

CURRENT OPERATING ENVIRONMENT: SAS (ON-LINE WITH SAS/FSP SAS/AF), COBOL, GES, GMS, FICHE

PRIMARY USERS: TEA and numerous other users

BENEFITS REALIZED: This system has provided the basic information that is fed to the foundation school program to determine the monthly state allocation amount to the local school districts.

EFFECTIVENESS (CURRENT): This system is a collection of SAS routines that has met the needs of the Agency, but only with heavy support from the Office of Information Systems.

FUTURE PLANS: The PEIMS system will take over the functions of this system as it becomes fully operational.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: BED - BILINGUAL EDUCATION - FALL SURVEY

PURPOSE: Collects the number of Limited English Proficiency (LEP) students.

ABSTRACT:

State law requires the reporting of the number of Limited English Proficiency students identified by campus and by language in which students possess primary proficiency. (TEC 21.453 and 19 TAC 77.356)

This information comes in on the Fall Survey form between November 1 and December 1. A batch report creates a master file divided into three parts. Part I is used to report composite grade level totals of current LEP enrollment, a breakdown of program participation, and the number of parental denials. Part II is used to report current LEP enrollment for school year by grade levels and language(s). Part III is used to report the current number of Foundation Personnel Units.

We produce reports for the Bilingual Division of state totals, district summaries, regional and FSP personnel reports.

SOURCE: Developed in-house

STATUS: Production

YEAR INSTALLED: 1982

CURRENT OPERATING ENVIRONMENT: GES, COBOL, GMS

PRIMARY USERS: Division of Bilingual Education and outside users

BENEFITS REALIZED: This system has allowed the Bilingual Education Division to produce reports more effectively with timely information and has allowed them to track bilingual students more efficiently.

EFFECTIVENESS (CURRENT): This system is meeting the basic needs of the Division it serves, however, it could be made more effective and efficient with the addition of on-line features.

FUTURE PLANS: Much of the information utilized by this system will be incorporated into the PEIMS system as it becomes fully operational. A study will be performed as resources become available to determine if this system can be fully replaced by PEIMS or if other development options are better suited for this support function.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: SCE - SCHOOL CURRICULUM REPORT

PURPOSE: Provide curriculum and membership information

ABSTRACT:

The school curriculum information is collected on a yearly basis. Districts record the total number of classes and total membership (enrollment) for each curriculum code offered in that district. Note that this information comes in on the Superintendent's Annual Report (SAR), Part II.

These reports give a list of all curriculum codes, course descriptions, total enrollments in these courses and number of sections for these courses. It also gives a State total enrollment for the Curriculum Division.

SOURCE: Developed in-house

STATUS: Individual report (not in production)

YEAR INSTALLED: 1982

CURRENT OPERATING ENVIRONMENT: GES, SAS

PRIMARY USERS: Curriculum Division, Data Collection, and others

BENEFITS REALIZED: This system has had limited success and is not a production system. It was developed in a stand-alone mode to meet a specific need and has never been fully utilized.

EFFECTIVENESS (CURRENT): It is no longer a production system.

FUTURE PLANS: This system will be replaced by PEIMS components as it becomes fully operational.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: SPC - STUDENT TRANSFERS REPORT AND FALL SURVEY OF PUPILS IN MEMBERSHIP

PURPOSE: Monitor ethnic balance changes due to student transfers during the school year and pupils in membership by campus for statistical and court order purposes.

ABSTRACT:

STUDENT TRANSFERS REPORT:

Compliance with federal court act, Civil Action 5281, Section A. Transfer data is collected so that the Agency can monitor changes in ethnic groups above 1% due to local transfers. Data collected under this program is used to identify these districts and monitor districts to assure compliance with federal laws.

FALL SURVEY OF PUPILS IN MEMBERSHIP:

The Fall Survey of Pupils in Membership is a campus level report of all pupils in membership as of October. The pupils are to be reported by grade, sex, and ethnicity.

SPC system edits transactions and maintains the Fall Survey of Pupils in Membership master in campus order.

SOURCE: Developed in-house

STATUS: In production

YEAR INSTALLED: 1977

CURRENT OPERATING ENVIRONMENT: GES, COBOL, GMS, Fiches

PRIMARY USERS: Accreditation Division

BENEFITS REALIZED: This system has allowed the Accreditation Division to effectively track and monitor the student transfers as required by law.

EFFECTIVENESS (CURRENT): This system is being rapidly replaced with the implementation of the PEIMS system.

FUTURE PLANS: This system will become obsolete with the full implementation of the PEIMS system.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: VED - VOCATIONAL EDUCATION DATA SYSTEM

PURPOSE: Provide files for use by Vocational Divisions in federal reporting and allotment determination.

ABSTRACT:

Data is entered from the Vocational Enrollment Report and the Vocational Program Completer and Employer Follow-up Report.

The VED system uses the GMS system to edit and update the VSAM files.

State total reports are produced for the Program Planning Division to use to check their SAS programs.

These files are used for many purposes by the Vocational Divisions. Program Planning uses the database for the Annual Performance Report due to the Federal Department of Education each December. The Vocational Education Funding and Compliance Division uses the enrollment data to determine federal allotments for the vocational education districts. These files are also used for planning and monitoring visits.

STATUS: In production

YEAR INSTALLED: 1977

CURRENT OPERATING ENVIRONMENT: GMS, GES, COBOL, SAS

PRIMARY USERS: Program Planning Division, Vocational Education Funding and Compliance Division, and Vocational Education Programs Division

BENEFITS REALIZED: This system has effectively produced the necessary data files for the Vocational Education Divisions to comply with statute and to aid in the planning of monitoring visits.

EFFECTIVENESS (CURRENT): This system is currently being replaced through the development of a subsystem of PEIMS with the aid of the consulting firm Coopers & Lybrand

FUTURE PLANS: This system will be replaced in 1988 with the implementation of a subsystem of PEIMS.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: VOC-MOA VOCATIONAL EDUCATION - METHODS OF ADMINISTRATION

PURPOSE: To produce reports used for desk audits required by the Office for Civil Rights.

ABSTRACT:

The Vocational Education - Methods of Administration produces two series of reports. The first uses the VEDs data and reports enrollments of handicapped, disadvantaged, and special needs students. It also produces reports of sex and ethnic discrepancies by vocational program.

The second series produces reports of students and teachers by program area using VEDs and Roster data.

Both series are run independently and as requested by the user.

The system prefix "VOC" is used in many places where reports are needed for the vocational area but are not specifically UAS, VFA, or VED.

SOURCE: Developed in-house

STATUS: Non-production (User requests as needed)

YEAR INSTALLED: 1986

CURRENT OPERATING ENVIRONMENT: SAS

PRIMARY USERS: Vocational Education Funding and Compliance Division

BENEFITS REALIZED: This system, although non-productional, has allowed the Voc. Ed. division to produce reports that aided them in the determination of a local school district's compliance with statutes.

EFFECTIVENESS (CURRENT): This system is currently being replaced through the development of a subsystem of PEIMS with the aid of the consulting firm Coopers & Lybrand.

FUTURE PLANS: This system will be replaced in 1988 with the full implementation of the PEIMS subsystem.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: UAS - UNIT ALLOCATION SYSTEM

PURPOSE: Retain information to support the approval of vocational programs for funding.

ABSTRACT:

The Unit Allocation System is used to comply with House Bill 72 which requires that the State Board of Education approve vocational programs in order for the program to receive state and federal funding.

The district submits an application (SAS 309) every spring for approval through vocational education programs. If there are no changes, the prior year's programs are approved.

It is important to note that the system records programs that have been approved to be offered and not which programs are actually implemented by the district.

Reports may also be sent to the Legislature and the Governors Office.

SOURCE: Developed in-house

STATUS: Productional

YEAR INSTALLED: 1975

CURRENT OPERATING ENVIRONMENT: COBOL

PRIMARY USERS: Vocational Education Funding and Compliance Division

BENEFITS REALIZED: This system has allowed the Agency to comply with the requirements of House Bill 72 in a timely and effective manner.

EFFECTIVENESS (CURRENT): This system is currently being replaced with the development of a subsystem of PEIMS with the assistance of the consulting firm Coopers & Lybrand.

FUTURE PLANS: This system will be replaced in 1988 with the full implementation of the PEIMS subsystem.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: TVP - TEACHER VERIFICATION PROGRAM

PURPOSE: Creates reports re: teachers' assignments and certification which is used in monitoring teachers.

ABSTRACT:

The TVP system collects information from the Roster of Personnel system (FSP or STF) and the Certification system and creates a report which lists all teachers alphabetically in a given county district, minimal employment information, the teachers' assignments (what they teach), and their certifications (what the are authorized by TEA to teach). The report is used by the Compliance Division of TEA who visit schools in a given county district and check the school's records against the TVP report to see if the teachers are in fact teaching what TEA's records indicated they are certified to teach.

The TVP does not collect or update data. It uses current data from the Roster of Personnel which is on M204 and current data from Certification which is on VSAM. A TVP report is created weekly during the school year. The Agency Compliance Division informs the Information Systems Department which county districts will be visited and the report is created only for those districts.

SOURCE: Developed in-house

STATUS: Non-production

YEAR INSTALLED: 1985

CURRENT OPERATING ENVIRONMENT: M204, M204 User Language, COBOL

PRIMARY USERS: Compliance personnel

BENEFITS REALIZED: This system has allowed the Agency to pull detailed information on specific local school districts before a compliance visit allowing greater effectiveness on monitoring.

EFFECTIVENESS (CURRENT): This system is in the process of being replaced by the development of a subsystem of PEIMS with the assistance of the consulting firm Coopers & Lybrand.

FUTURE PLANS: The new PEIMS subsystem will become operational some time in 1988.

ATTACHMENT 6
CURRENT OPERATIONAL SUPPORT SYSTEMS

SYSTEM TITLE: ACE - ADULT AND COMMUNITY EDUCATION

PURPOSE: To support the allocation of federal and state funds for Adult and Community Education and to satisfy associated reporting requirements.

ABSTRACT:

The Adult and Community Education system is deviated into three parts as described below:

(1) Compile the Annual Performance Report from the coops to satisfy the requirements of the U.S. Department of Education.

(2) Allocate state and federal funds to the coops to be used for Adult and Community Education programs in the districts. The formula to allocate the funds is based upon ACE contact hours (from the Annual Performance Report) and the population of under educated adults in the district (from the Census Bureau).

(3) Process the annual reports and/or application for Foundation School Funds for community education by campus and district.

SOURCE: Developed in-house

STATUS: Non-productional

YEAR INSTALLED: 1983

CURRENT OPERATING ENVIRONMENT: COBOL, GMS, SAS

PRIMARY USERS: Adult and Community Education Division

BENEFITS REALIZED: This system has allowed the Agency to produce reports in a timely manner for monitoring and statutory considerations.

EFFECTIVENESS (CURRENT): This system has been effective in the past but no longer completely meets the needs of the Agency in the new automated environment.

FUTURE PLANS: As the PEIMS system becomes operational, much of the data used in this system will become part of the PEIMS data base. This system will then be studied to determine the appropriate developmental action.

Attachment 7

TEA AUTOMATED SYSTEMS DISASTER RECOVERY PLANNING METHODOLOGY

The Texas Education Agency currently has in place basic procedures to safeguard and restore in the event of disaster the automated systems and information processed on the Agency mainframe computer. A more comprehensive and thorough plan is required to assure that minimum disruption of Agency activities will occur in a disaster situation.

The Agency, as described herein, intends to develop a more comprehensive disaster recovery plan using as a basis the guidelines developed by TASSCC and endorsed by AITC. Under the overall direction of the Deputy Commissioner for Research and Information, the Agency office of Information Systems is responsible for directing the development of a comprehensive Agency automated systems Disaster Recovery Plan.

The Assistant Commissioner for Information Systems will organize an initial planning committee to define the scope and content of the Agency plan and plan development efforts. The Planning Committee will define the activities necessary for plan development following the outline contained in Exhibit 1. Structure of the disaster recovery plan will be based on the outline contained in Exhibit 2. A project orientation and approval briefing will be presented to Agency management describing the plan requirements and associated development project in terms of resource requirements, management commitment, project deliverables and timelines.

Upon approval by Agency management of the plan content and development methodology, an automated systems disaster recovery planning committee will be appointed to develop the Agency plan. This committee will consist of representatives from senior management, user division management, and data processing management. A project leader will be designated from this group with responsibility for project coordination, guidance and overall project management. A project plan will be developed with specific assignments for each member of the Planning Committee together with milestones, target dates and deliverables. Periodic management briefings will be scheduled for reporting the progress of the Planning Committee and ensuring continued management guidance, commitment and support for the planning effort until completion.

The Agency considers a comprehensive disaster recovery plan essential to provide a predesignated framework for assuring rapid and complete recovery of automated operations following a disaster situation. The development of this plan is to be completed during fiscal year 1989.

Exhibit 1

TEXAS EDUCATION AGENCY
AUTOMATED SYSTEMS DISASTER RECOVERY PLANNING OUTLINE

Summarized below are the primary activities considered necessary to develop an automated systems disaster recovery plan for the Texas Education Agency.

A. EXECUTIVE MANAGEMENT SUPPORT

1. Commitment
2. Objectives
3. Motivation

B. DISASTER RECOVERY PLANNING COMMITTEE

1. Project Leader
2. Project Plan/Control
3. Committee Selection
4. Assign Responsibilities
5. Regular Committee Meetings
6. Periodic Management Briefing

C. DISASTER RECOVERY CAPABILITY ASSESSMENT

1. Check List
2. Recovery Analysis
3. Task Assignments

D. RISK ANALYSIS

1. Risk Assessment
2. Risk Management
   a) Evaluate Threats
   b) Establish Controls
   c) Implement Security Measures

E. SYSTEM PRIORITIZATION

1. User Involvement
2. Classification
   a) No Deviation
   b) Run After Critical
   c) Do Not Run
3. Critical System Prioritization
4. Coordination
5. Management Approval

F. REQUIREMENTS ANALYSIS

1. Logistics
2. Hardware
3. Software
4. Communications
5. Data
6. Alternate Processing Site
7. Vendor Support
8. Inter-Agency Support
9. Personnel
10. Office Equipment
11. Funding
12. Storage

G. RECOVERY OPERATIONS

1. Recovery Processes
2. Recovery Organization
3. Recovery Teams
   a) Damage Assessment Team
   b) User Liaison Team
   c) Communications Team
   d) Operations Team
   e) Security/Back-Up Team
   f) System Software Team
   g) Procurement Team
   h) Facilities Team
4. Disaster Recovery Procedures

H. TRAINING

1. Select Instructors
2. Develop Training Material
   a) Risk Management
   b) Disaster Procedures
3. Identify Personnel for Training

I. TESTING

1. Frequency
2. Test Plan

J. PLAN/PROCEDURE UPDATES

1. Systems Review
2. Test Results
3. Environmental Changes

Exhibit 2

TEXAS EDUCATION AGENCY
DISASTER RECOVERY PLAN OUTLINE

The automated systems disaster recovery plan to be developed for the Texas Education Agency will follow the basic outline described herein.

INTRODUCTION

1.1 The Plan's Purpose
1.2 The Goals of the Plan
1.3 The Objectives of the Plan
1.4 The Benefits Identified by Developing a Comprehensive Disaster Recovery Plan

SCOPE

1.1 Policies that govern the Agency, the Information Systems Division, and that provide the foundation for the development of this plan
1.2 An overview of the major components of the Agency

RESPONSIBILITIES

1.1 The Commissioner
1.2 The Deputy Commissioners
1.2 The Assistant Commissioner for Information Systems
1.3 The Disaster Recovery Team Director
1.4 The Disaster Recovery Center
1.5 The personnel that compose the Recovery Teams

ASSUMPTIONS

1.1 The assumptions and constraints that this plan must work within

RISK ANALYSIS

1.1 The assessment of threats to the Agency Information Systems resources and the determination of the amount of protection necessary to adequately protect Agency resources from these identified threats. This analysis is necessary for vital services to be reinstated quickly in case of a disaster.

Risk Analysis is composed of two parts:

1.1.1 Risk Assessment
1.1.2 Risk Management

CRITICAL SYSTEMS

1.1 Identification of all Agency production systems and applications necessary for continued operation.

PLAN ACTIVATION AUTHORITY

1.1 A management statement establishing the precise areas of authority for implementation of this plan in the event of a disaster.

RECOVERY OPERATIONS

1.1 Summary of the Disaster Recovery Processes
1.2 Summary of the Disaster Recovery Procedures
1.3 Identification of all Disaster Team Directors
1.4 Identification of the location of the Command Center
1.5 Identification of each member of each Recovery Team

IDENTIFICATION OF NECESSARY TRAINING

1.1 Training of each recovery team
1.2 Training of all "Critical Systems" Users
1.3 Training of all management personnel in the ability to identify potential areas of risk.

TESTING OF THE DISASTER RECOVERY PLAN

1.1 Testing Schedule
1.2 Test Scenario
1.3 Test Monitoring Procedures

RECOVERY PLAN REVISIONS AND UPDATES

1.1 Environmental Changes
1.2 Changes as a Result of Testing
1.3 Review Schedule to Maintain a Current Plan

ATTACHMENT 8
ESTIMATED COMPUTER SERVICES BY AGENCY PROGRAM AREA

The following attachment details by Agency program the following:

1. Program Objective

2. Legislative Authority

3. Program Description

4. Estimated Program Budget

5. Discussion of Performance Measures

6. The manner in which the program and corresponding Agency automated support fit into the goals as set forth by the State Board of Education.

ATTACHMENT 8
ESTIMATED COMPUTER SERVICES BY AGENCY PROGRAM AREA

COMPUTER SERVICES, ESTIMATED

Program Area - Discretionary/Agency-Related Programs

Program Objective - To establish and implement a statewide system of computer services responsive to the requirements of school districts, the regions, and the state to (1) meet the needs of school districts for management information, instructional support, and administrative services; and (2) provide information required for state and federal reporting and for Texas Education Agency operational purposes.

Legislative Authority - Texas Education Code, Section 11.33(b), General Powers and Duties of Regional Education Service Centers

Program Description - State funds partially support the provision of computer services through education service centers (ESCs) for school districts and the students they serve. Eight ESCs operate large computer centers. Computer terminals located at the other twelve ESCs and in some school districts provide increased access to computer services, including test scoring, scheduling, grade reporting, attendance accounting, payroll, personnel, tax, financial accounting, and instructional support.

Eligible Applicants--Formula Program - ESCs are eligible for funding based on prior year average daily attendance (ADA) of participating school districts.

Eligible Applicants--Discretionary Programs - ESCs are eligible for funding for discretionary programs.

Formula Program - Funds are allocated to ESCs based on school district participation in funded computer services. School districts pay about three fourths of the costs incurred for the provision of computer services.

Discretionary Program - The major categories of discretionary funding are (1) software development, modification, and maintenance; (2) communications; and (3) research and development.

Estimated Program Budget

School Year	Local Share	State Flow Through	State Discretionary	Total
1987-88	0	$2,459,079	$500,000	$2,959,079
1988-89	0	2,502,802	500,000	3,002,802
Level II:				
1989-90	0	$2,522,448	$500,000	$3,022,448
1990-91	0	2,565,053	500,000	3,065,053
Level I:				
1989-90	0	$2,522,448	$500,000	$3,022,448
1990-91	0	2,565,053	500,000	3,065,053
Level III:				
1989-90	0	$2,522,448	$500,000	$3,022,448
1990-91	0	2,565,053	500,000	3,065,053

School Year	Local Share	State Flow Through	State Discretionary	Total
Level IV:				
1989-90	0	$2,522,448	$500,000	$3,022,448
1990-91	0	2,603,587	500,000	3,103,587

Assumptions Used to Create the Estimates - Amounts for 1987-88 and 1988-89 are set to appropriated levels less the .0065 reduction. Estimates for 1989-90 and 1990-91 at all request levels are set at $1.00 per total ADA of the prior year. However, note that this program has been increased at Level IV because of an increased in total ADA resulting from the inclusion of disadvantaged pre-kindergarten students in the Foundation School Program.

Program Need Indicators

	1987-88	1988-89	1989-90	1990-91
Total ADA (w/o Pre-K)	2,995,971	3,022,448	3,065,053	3,109,654
Total ADA (w/ Pre-K)	2,995,971	3,022,448	3,103,587	3,153,034
Number of ESCs providing services:	20	20	20	20

Program Performance Measures

	1987-88	1988-89	1989-90	1990-91
Levels I, II, and III				
Number of school districts provided computer services:	894	894	900	900
Total Cost of Services Provided				
Level IV				
Number of school districts provided computer services:	894	894	900	900
Total Cost of Services Provided				

Discussion of Performance Measures - The ultimate goal is to provide equal access and service for school districts in the computer services listed as program need indicators. The number of school districts participating in each of the funded services is reported to TEA as of the close of each fiscal year. School district participation figures form the basis for distributing funds to the ESCs.

Type of Project

Goal 4 - Organization and Management. The organization and management of all levels of the educational system will be productive, efficient, and accountable.

RESEARCH, DEVELOPMENT, AND EVALUATION

Program Area - Discretionary / Agency-Related Programs

Program Objective - To provide financial support for the increased research, development, and evaluation duties mandated and implied by the 1984 reform legislation for public education.

Legislative Authority - Texas Education Code, Section 11.26, Powers and Duties Related to Educational Needs of the State

Program Description - These funds are awarded for contracted services relating to activities approved by the State Board of Education.

Eligible Applicants--Discretionary Program - Eligible applicants will depend upon the type of research grant available. Large scale research projects will be available to qualified contractors and colleges and universities. Grants will also be available for teacher-based research and graduate education research.

Discretionary Program - These funds are available for contracted studies and services which further research, development, and evaluation projects related to public education in Texas.

In 1988-89, $435,188 is available to fund priority research as disseminated by the Commissioner of Education with recommendations from the Advisory Committee on Research and Evaluation. Plans for these funds are as follows:

* Master teacher appraisal development, administrator evaluation system development, and the development of an accreditation handbook ($255,000)
* Approximately 15 individual research grants addressing priority areas ($75,000)
* Consulatative fees related to the development and implementation of the Long Range Plan for Technology ($10,000)
* Reserve for special studies to support new, emerging issues and new legislative directives.

Funds requested at Levels I and II for the next biennium would be sufficient only to maintain on-going and legislated studies. Funds requested at Levels III and IV would be used to expand the scope of efforts undertaken in these and other areas, as described under "Assumptions Used to Create the Estimates".

Estimated Program Budget

School Year	Local Share	State Flow Through	State Discretionary	Total
1987-88	0	0	$ 435,188	$ 435,188
1988-89	0	0	435,188	435,188
Level II:				
1989-90	0	0	$ 438,035	$ 438,035
1990-91	0	0	438,035	438,035
Level I:				
1989-90	0	0	$ 438,035	$ 438,035
1990-91	0	0	438,035	438,035
Level III:				
1989-90	0	0	$2,750,000	$2,750,000
1990-91	0	0	2,750,000	2,750,000
Level IV:				
1989-90	0	0	$2,750,000	$2,750,000
1990-91	0	0	2,750,000	2,750,000

Assumptions Used to Create the Estimates - Amounts for 1987-88 and 1988-89 are set to appropriated levels less the .0065 reduction. Level II, or current law, estimates for 1989-90 and 1990-91 are set at the 1988-89 appropriated levels without reduction.

The requested funding at Levels III and IV will permit the adoption of separate programs for research efforts varied in scope, and limited developmental and evaluation programs and a greater emphasis could be placed on each. The $2.75 million annually could be directed toward the following efforts:

Research ($1,000,000)

* Support for research in board priority areas, including demonstration projects to increase flexibility with accountability ($500,000).
* Support for small research projects ($250,000).
* Support for on-going and legislatively mandated studies such as the development of the Price Differential Index, Acountable Costs, and the State Board of Education's Long Range Plan for Public Education ($250,000).

Development ($ 750,000)

* Consultant services for the development of administrative systems mandated by statute, such as school administrator training.

Evaluation ($1,000,000)

* Support for major projects evaluating recent educational reforms such as disadvantaged pre-kindergarten, reduced class sizes in early grades, and increased assessment objectives in TEAMS.

Program Need Indicators	1987-88	1988-89	1989-90	1990-91
Current Law State Funds Spent on Public Education (in billions)	$5.05	$5.11	$5.24	$5.34
Number of studies mandated by statute	15	15	15	15

Program Performance Measures	1987-88	1988-89	1989-90	1990-91
Levels I and II				
RDE funds as a % of current law state funds	.009%	.009%	.008%	.008%
Number of studies conducted	10	25	60	60
Research				
Development				
Evaluation				
Levels III and IV				
RDE funds as a % of current law state funds	.009%	.009%	.052%	.051%
Number of studies conducted	10	25	60	60
Research				
Development				
Evaluation				

Discussion of Performance Measures - It is important to direct a small portion of public education funds to research, development, and evaluation efforts. At current levels, appropriated funds for these activities represent less than one tenth of one percent of current law state funds spent. The funds requested at Levels III and IV would increase the state's commitment to slightly over one-half of one percent.

The number of studies undertaken with these funds is a measure of the effectiveness of these funds. A number of small projects will be funded that will broaden our the research and development base for public education. Some efforts will result in printed reports of findings and others in information / study results with which to make decisions about public education.

Type of Project

Goal 7 - Innovation. The instructional program will be continually improved by the development and use of more effective methods.

TESTING AND APPRAISAL

Program Area - Discretionary / Agency-Related Programs

Program Objective - The purpose of this program is to (1) develop, administer, score and report the necessary tests to determine master teacher status; (2) develop, administer, score and report the necessary tests for continued certification as a teacher and administrator; and (3) provide a uniform system for the appraisal of teacher performance and administrator performance.

Legislative Authority - Texas Education Code, Sections 13.316, Master Teacher Comprehensive Examination, 13.047, Examination for Teachers and Administrators Not Taking Certification Examinations, and 13. 302, Appraisal Powers and Performance Criteria

Program Description - The Agency developed a teacher appraisal system that was initially implemented in school year 1986-87. Contracted services were used in the piloting of this system and in the development of the training programs. Approximately 14,000 appraisers were trained during the summer of 1986. The teacher appraisal system will require revision and maintenance. Additional training also requires the development and implementation of an appraisal system for administrators.

Eligible Applicants--Discretionary Program - Eligible applicants include universities and private firms that have the capability to conduct large scale pilot appraisal programs, develop, administer, and score tests and manage large scale training programs.

Discretionary Program - In school year 1988-89, the $596,100 will be expended for appraisal in the following manner:

. Technical study and data analysis	$ 20,000
. study of student achievement	$ 42,000
. training programs for appraisal system	$277,000
. training materials for teacher appraisal	$104,100
. recertification training	$ 18,000
. master teacher appraisal development	$100,000
. administrator appraisal development	$ 35,000

The level of funding requested for the next biennium at Levels III and IV is $3.7 million. Of this amount, $1.1 million will be spent annually for maintenance or expansion of the appraisal system for teachers, master teachers, and administrators. The remaining $1.5 million would be spent on the development of a master teacher examination.

Estimated Program Budget

School Year	Local Share	State Flow Through	State Discretionary	Total
1987-88	0	0	$ 596,100	$ 596,100
1988-89	0	0	596,100	596,100
Level II:				
1989-90	0	0	$ 600,000	$ 600,000
1990-91	0	0	600,000	600,000
Level I:				
1989-90	0	0	$ 600,000	$ 600,000
1990-91	0	0	600,000	600,000
Level III:				
1989-90	0	0	$3,700,000	$3,700,000
1990-91	0	0	U.B.	U.B.
Level IV:				
1989-90	0	0	$3,700,000	$3,700,000
1990-91	0	0	U.B.	U.B.

Assumptions Used to Create the Estimates - Amounts for 1987-88 and 1988-89 are set to appropriated levels less the .0065 reduction. Level II and Level I estimates for 1989-90 and 1990-91 are set at the 1988-89 appropriated levels without reduction. They are based on the following assumptions: (1) the master teacher examination is necessary for those teachers interested in achieving master teacher status on the career ladder, (2) the teacher appraisal system requires additional training and maintenance, (3) all teachers must be appraised at least once annually by certified appraisers, and (4) appraisers need to be trained to accomplish this task.

The estimated number of educators to be tested is based on information derived form the most recent personnel data submitted by local districts. The estimated number of appraisers that would need to be trained is based on a number of factors including the length of the appraisal, the number of appraisals needed per teacher, and the number of campuses where appraisals would occur.

Program Need Indicators

	1987-88	1988-89	1989-90	1990-91
Teachers to be tested for master teacher	0	0	10,000	30,000
Teachers to be appraised for the career ladder	175,000			

Program Performance Measures	1987-88	1988-89	1989-90	1990-91
Levels I and II				
Tests Administered	0	0	0	0
Appraisers Trained or Retrained	13,000	13,000	13,000	13,000
Levels III and IV				
Tests Administered	0	0	10,000	30,000
Appraisers Trained or Retrained	13,000	13,000	13,000	13,000

Discussion of Performance Measures - The performance measures for the testing program will be designated as the number of tests administered rather than the number of individuals tested. In many cases it is necessary for a an individual to take more than one test. It is also necessary for some examinees to take the test more than once before they pass.

The performance measure for appraisal is the number of appraisers trained or retrained in each year.

Type of Project

Goal 3 - Teachers and Teaching. Qualified and effective teachers will be attracted and retained.

TEACHER CERTIFICATION ASSESSMENT

Program Area - Discretionary / Agency-Related Programs

Program Objective - To administer a battery of tests used in the certification of administrators in Texas.

Legislative Authority - Texas Education Code, Section 13.032(e), Certification of Teachers Rules and Regulations

Program Description - A battery of examinations covering the certification areas used in Texas has been developed. Contracted services are necessary to revise and update these tests on a three-year cycle.

Eligible Applicants--Discretionary Program - Current contractors or new contractors are eligible that have the capability of developing and validating new items for the certification test program.

Discretionary Program - For 1988-89 the $273,212 will be expended in the following fashion:

- $45,000 for validating oral language proficiency tests, and
- $228,212 is contracted services with National Evaluation Services, Inc., to develop and validate new items for the certification testing program.

Estimated Program Budget

School Year	Local Share	State Flow Through	State Discretionary	Total
1987-88	0	0	$273,212	$273,212
1988-89	0	0	273,212	273,212
Level II:				
1989-90	0	0	$275,000	$275,000
1990-91	0	0	275,000	275,000
Level I:				
1989-90	0	0	$275,000	$275,000
1990-91	0	0	275,000	275,000
Level III:				
1989-90	0	0	$275,000	$275,000
1990-91	0	0	275,000	275,000
Level IV:				
1989-90	0	0	$275,000	$275,000
1990-91	0	0	275,000	275,000

Assumptions Used to Create the Estimates - Amounts for 1987-88 and 1988-89 are set to appropriated levels less the .0065 reduction. Estimates for 1989-90 and 1990-91 are set at the 1988-89 appropriated levels without reduction. The requests for all budget levels are identical.

The estimated number of students and teachers to be tested is based on the number of new certificates and the number of certificates issued to out-of-state teachers in 1986-87.

Program Need Indicators

	1987-88	1988-89	1989-90	1990-91
Individuals to be certified	11,000	11,000	11,500	11,500

Program Performance Measures

Levels I, II, III, and IV	1987-88	1988-89	1989-90	1990-91
Individuals Tested for Certification	20,000	21,000	23,000	24,000

Discussion of Performance Measures - Students from the 66 colleges and universities in the state, as well as out-of-state teachers coming to Texas must be tested prior to certification.

Type of Project

Goal 3 - Teachers and Teaching. Qualified and effective teachers will be attracted and retained.

THE LONG-RANGE PLAN FOR TECHNOLOGY
(Levels III and IV Component)

Program Area - Discretionary / Agency-Related

Program Objective - To initiate implementation of the long-range technology plan by improving communications among the education entities in the state, conducting research on effective uses of technology in instruction and administration, and supporting district hardware purchases.

Legislative Authority - To be recommended.

Program Description - Implementation of the long-range plan for technology during this biennium focuses on five programs:

(1) a statewide electronic information transfer system to exchange mail within districts and among districts, service centers, and the agency, and to deliver technical assistance and supplementary instruction to districts and campuses;

(2) a statewide, integrated telecommunications system built upon the strengths of existing systems that will serve as a link among the agency, the districts, and the education service centers for the purposes of inservice, technical assistance, teleconferencing, and distance instruction;

(3) demonstration programs to evaluate the effectiveness of various technology configurations in a variety of instructional and administrative settings and to highlight effective uses;

(4) the Center for Educational Technology, a research and development consortium of hardware, software, textbook, testing, and other companies, schools, institutions of higher education, and the state whose purpose is to promote and test innovative applications of existing and emerging technologies in education; and

(5) a mechanism to support district purchases of hardware.

Eligible Applicants--Discretionary Program - Entities eligible to receive funds or goods and services vary according to the program.

Discretionary Program - The statewide electronic information transfer system will allow all K-12 education entities in the state or any combination of them to share administration-related mail and information, under a maximum length, to teleconference, to establish electronic bulletin boards for posting announcements, suggestions, and questions, and to deliver technical assistance and supplementary instruction.

The funds requested for the audio/video/information telecommunications system are divided into two functions--equipment, and program development. The preponderance of the former is devoted to purchasing equipment and improving facilities at the agency and to equipping districts and service

centers with telecommunications capabilities. Additional funds are allotted for preparing the inservice and instructional programs.

Demonstration programs will be initiated, differing according to a number of factors. They will vary in length from one year to five years; in research design from controlled to observational studies; in focus, including instructional, administrative, and informational uses; in population, including at-risk, bilingual, handicapped and other populations, as well as elementary through high school students; in technologies, including currently available computers, dedicated workstations for specific or multiple purposes, videodiscs, and telecommunications devices; in content areas; and in participants, including schools, districts, service centers, the agency, institutions of higher education, and vendors.

The Center for Educational Technology will be established during 1989-90 to undertake research and development projects beginning in 1990-91 in such areas as diagnostic software and applications of CD-ROM, interactive videodisc, and artificial intelligence technologies to education.

Funds will also support staff and equipment in the regional education service centers. Initially, one staff member at each ESC will assist in training district personnel, providing technical assistance both in hardware selection and software application building, developing district technology plans, and using the Technology Preview Centers. A Technology Preview Center will be created in each ESC as a laboratory for testing, demonstrating, and training on a variety of hardware and software configurations.

Estimated Program Budget

School Year	Local Share	State Flow Through	State Discretionary	Retained for Agency Admin	Total
1987-88	0	0	0	0	0
1988-89	0	0	0	0	0
Level II					
1989-90	0	0	0	0	0
1990-91	0	0	0	0	0
Level I					
1989-90	0	0	0	0	0
1990-91	0	0	0	0	0
Level III					
1989-90	0	0	$9,191,800	$ 675,791	$9,867,591
1990-91	0	0	6,105,800	676,791	6,782,591
Level IV					
1989-90	0	0	$9,191,800	$ 675,791	$9,867,591
1990-91	0	0	6,105,800	676,791	6,782,591

Assumptions Used to Create the Estimates - As this new program is proposed at Levels III and IV, there are no funds requested for Levels I and II. The biennial budget was developed for Levels III and IV at a biennial cost of $16.65 million. The cost breakdown for each program within the plan

presented below has been estimated using the best information currently available.

(1) All districts and service centers will receive appropriate hardware and software, training in their use, and limited connect time. Cost for the biennium: $3,351,000.

(2) All regional education service centers and 200 districts during the biennium will be eligible for additional equipment that increases their telecommunications capabilities; districts will be phased in during future biennia at the rate of 200 per biennium. The agency will be equipped with telecommunication capabilities. In addition, approximately one-half of the requested funds are allocated for the development of programs. Cost for the biennium: $5,921,600.

(3) Participants in the demonstration programs will apply through competitive bidding to agency-developed Requests for Proposals. Criteria will include applicability of the proposal to long-term implementation of the plan, innovation, and local support through participation of vendors and other means. Eligible applicants are districts, service centers, and institutions of higher education. The number of successful applicants varies by demonstration program. Funds will be available for hardware and software acquisition and use, materials development, staff, and training. Cost for the biennium: $1,500,000.

(4) Institutions of higher education are eligible to apply as headquarters for the Center for Educational Technology; there will be one successful applicant. Funds will be used in the first year for legal and logistical work and for attracting appropriate private participation and federal support. During the second year, funds will continue to support administration for the purpose of initiating research and development projects. Cost for the biennium: $1,025,000.

(5) Discretionary funds would support staff at the ESCs involved in the activities described. It is estimated that in 1989-90, one FTE at a payroll cost of $50,000 would be hired at each center. In 1990-91, 10 additional FTEs would be added statewide at similar costs. Costs for the biennium: $2,500,000.

(6) The estimated cost of supporting a Technology Preview Center at each service center is $25,000 per year. Costs for the biennium: $1,000,000.

A schedule for the biennial operating budget is included as an attachment.

Additionally, the Long-Range Plan for Technology does propose a Technology Allotment Fund be established to support district investment in hardware for instructional and/or administrative purposes. Although funding is not proposed in this budget, a $50 per student, wealth-equalized allotment is described.

Program Need Indicators -

	1987-88	1988-89	1989-90	1990-91
Nmbr of districts needing communications	587	1,062	1,062	1,062
Nmbr of districts needing programming	1,062	1,062	1,062	1,062
Number of ESCs needing technology assistance	20	20	20	20
Nmbr of districts needing demonstration of effective uses	1,062	1,062	1,062	1,062
Number of administrators needing research for decision-making	13,600	13,600	13,700	13,700

Program Performance Measures -

Levels III and IV	1987-88	1988-89	1989-90	1990-91
Nmbr of districts receiving electronic mail communications	475	650	1,062	1,062
Nmbr of districts participating in demonstration programs	10	70	80	25
Nmbr of districts receiving integrated telecommunications capabilities for st. network	223	290	390	490
Ratio of students to computers	30:1	30:1	29:1	29:1

Discussion of Performance Measures - A variety of measures are proposed to indicate the level and extent of use of these funds.

Electronic Mail Communications - By the start of the next biennium, all districts are projected to be linked into a statewide electronic information transfer system. For purposes of equity and uniformity, all districts and service centers will receive hardware, software, and limited on-line time.

Demonstration Program Participation - A significant increase in the number of districts participating in demonstration programs is expected in FY 89 due to the addition of schools included in the STAR Schools grant. This is a federal discretionary grant made to a consortium of entities, including the Texas Education Agency and Region XX, to

provide science, mathematics, and foreign language to students eligible for Chapter I services. Increases in FY 90 would result from the use of funds proposed here. The decrease in FY 91 is explained by the end of the STAR schools funding; although these districts are likely to continue to receive programs by distance after the funding ends, they would no longer be considered demonstration sites.

Integrated Telecommunications Capabilities - This measure relates to distance learning technologies supported in the current biennium by the STAR Schools grant and other means. Increases in the next biennium would result from the use of these proposed funds.

Student to Computer Ratio - Schools are investing more funds in computer equipment. The FY 88 ratio was determined by a market survey conducted by QED, Inc. The Long-Range Plan for Technology proposes that a 23:1 ratio could be attained by FY 92 if the Technology Allotment Fund were initiated; however, without those monies, reduction in the ratio will occur more slowly.

Type of Project -

Goal 2 - Curriculum. A well-balanced curriculum will be taught so that all students may realize their learning potential and prepare for productive lives.

Goal 3 - Teachers and Teaching. Qualified and effective teachers will be attracted and retained.

Goal 4 - Organization and Management. The organization and management of all levels of the educational system will be productive, efficient, and accountable.

Goal 7 - Innovation. The instructional program will be continually improved by the development and use of more effective methods.

Goal 8 - Communication. Communications among all public interests will be consistent, timely, and effective.

LONG-RANGE PLAN FOR TECHNOLOGY
Attachment
Proposed Operating Budget 1989-90 and 1990-91

	Proposed Budget 1989-90	Percent	Proposed Budget 1990-91	Percent
Salaries	383,754	56.8	383,754	56.7
Fringe Benefits	57,037	8.4	57,037	8.4
Travel	30,000	4.4	35,000	5.2
Rentals	-0-	---	-0-	--
Communications & Utilities	26,000	3.8	26,000	3.8
Office Expense & Printing	19,000	2.8	19,000	2.8
Professional Fees & Serv.	150,000	22.2	150,000	22.2
Repairs & Maintenance	-0-	---	1,000	.1
Capital Outlay	10,000	1.5	5,000	.7
GRAND TOTALS	675,791	100.0	676,791	100.0
Number of Positions (FTEs)	13		13	

PUBLIC EDUCATION INFORMATION MANAGEMENT SYSTEM (PEIMS)

Program Area - Discretionary / Agency-Related Programs

Program Objective - To carry out the mandate of statute for greater accountability in public education by managing the collection, storage, and use of information from and about local education agencies (LEAs). Other objectives include the return of data for local use and reduction of effort by LEAs in reporting data to the Agency.

Program Description - The Public Education Information Management System (PEIMS) was developed to replace current transmission of data on 34 predetermined forms, reduce the need for ad hoc data requests from school districts, eliminate unnecessary paperwork, and provide better information for use in public policy decision making related to public education. Developed as a prototype and pilot tested in 1987, the project was widely implemented in 1988. Funds for this program are used to develop and maintain processing capabilities in education service centers (ESCs) and Texas Education Agency.

Eligible Applicants - Education Service Centers

Discretionary Program - Funds are provided to education service centers for training, data collection, and editing of school district personnel.

At the requested level of funding, additional activities would be undertaken to support this system. The $4.5 million annual appropriation would be spent as described below:

ESC Delivery Assistance and Staff ($3.75 million): These funds would support ESC assistance in data collection and allow the centers to add additional staff to handle the expanded data requirements.

Statewide Conference on Information Technology ($ .15 million): The agency would host a statewide conference twice a year to serve as an information forum for district personnel on the uses and value of information technology.

School District Assistance ($ .6 million): The bulk of this amount is a one-time expenditure which would be used to purchase new hardware for 200 hardship districts and a five module software system applicable to all districts. A portion would also be spent on system maintenance.

Estimated Program Budget

School Year	Local Share	State Flow Through	State Discretionary	Total
1987-88	0	0	$2,779,930	$2,779,930
1988-89	0	0	2,188,110	2,188,110
Level II:				
1989-90	0	0	$2,500,000	$2,500,000
1990-91	0	0	2,500,000	2,500,000

School Year	Local Share	State Flow Through	State Discretionary	Total
Level I:				
1989-90	0	0	$2,500,000	$2,500,000
1990-91	0	0	2,500,000	2,500,000
Level III:				
1989-90	0	0	$4,500,000	$4,500,000
1990-91	0	0	4,500,000	4,500,000
Level IV:				
1989-90	0	0	$4,500,000	$4,500,000
1990-91	0	0	4,500,000	4,500,000

Assumptions Used to Create the Estimates - Amounts for 1987-88 and 1988-89 are set to appropriated levels less the .0065 reduction. Levels I and II requests for 1989-90 and 1990-91 are set at the 1988-89 funding level without the reduction.

The requests for Levels III and IV are based upon the proposed PEIMS budget for the next biennium described above.

Program Need Indicators

	1987-88	1988-89	1989-90	1990-91
Nmbr of manual forms completed by districts given full PEIMS implementation	114	93	78	65
Information to be collected on:				
Nmbr of Students	3,294,601	3,328,361	3,374,863	3,424,358
Nmbr of Staff				
Nmbr of Districts	1,086	1,086	1,086	1,086
Numbr of Campuses	5,992	5,992	5,992	5,992

Program Performance Measures

	1987-88	1988-89	1989-90	1990-91
Levels I and II				
Number of PEIMS Records Processed at the Agency	7,007,000	8,358,000	8,358,000	8,358,000
Number of New Systems Piloted (w/# of dists)	0 (0)	1 (10)	0 (0)	0 (0)
Number of Record Types Developed	8	10	15	25
Number of Data Elements Within Record Types	51	56	56	56
Number of Data Standards Manuals Distributed	2,500	3,000	3,500	4,000

Program Performance Measures (con't.) -

Levels III and IV	1987-88	1988-89	1989-90	1990-91
Number of PEIMS Records Processed at the Agency	7,007,000	8,358,000	23,958,000	36,958,000
Number of New Systems Piloted (w/# of dists)	0	1 (10)	1 (10)	1 (10)
Number of Record Types Developed	10	12	23	26
Number of Data Elements Within Record Types	51	56	146	156
Number of Data Standards Manuals Distributed	2,500	3,000	3,500	4,000

Discussion of Performance Measures - The performance measures at Levels III and IV were developed from the analysis of the requirements of the five year implementation plan for the program. If the requested level is not received, the probable outcome is to delay implementation of most of the student systems and to devote the current staff to enhancing the quality of the organization, finance, staff, and drop-out information already collected. A significant portion of the increase requested is planned to support expansion of the ESC role in editing and improving the data.

Type of Project

Goal 4 - Organization and Management. The organization and management of all levels of the educational system will be productive, efficient, and accountable.

ATTACHMENT 9
INFORMATION SYSTEMS COST ALLOCATION METHOD

All computer time and direct personnel time is recorded by application system on a monthly basis. Each application system can then be directly related to one of the Agency's operating departments. All costs for operating the Office of Information Systems are allocated based upon CPU time utilized and direct personnel support time required to the other operating departments of the Agency. At this time, a "charge-back" system is not in use at the Agency, the allocation information is supplied to department heads as an information and planning item.

ATTACHMENT 10

PERSONNEL SKILLS INVENTORY

	STAFF PROFICIENT

OFFICE OF ASSISTANT COMMISSIONER OF INFO. SYSTEMS

OF PERSONNEL = 3 (1 - Assistant Commissioner; 1 - Systems Analyst III; 1 - Administrative Technician II)

SOFTWARE

Microsoft Word V3.01	2
Microsoft Multiplan	1
DOS 3.2	2
Lotus 1-2-3	2
Org. Plus	1
IBM PC LAN Program	2
IBM PC 3270 Emulation Program	2
Roscoe	2
Harvard Graphics	1
DBaseIII	1
COBOl	1
Auditec	1
WordPerfect	1
SAS	1
QMF	1

HARDWARE

IBM PC'S (PS2, AT, XT)	2
DEC 1091E	1
IBM 4381-14	1
COMPAC PC's	1

REPORTS MANAGEMENT DIVISION

OF PERSONNEL = 19 (1 - Division Director; 2 - Systems Analyst IV; 2 - Planner II; 1 - Systems Analyst II; 1 - Administrative Program Specialist II; 2 - Statistician II; 1 - Administrative Technician II; 1 - Clerical Supervisor IV; 1 - Statistician I, 1 - Clerical Supervisor III; 3 - Administrative Secretary; 1 - Statistician Clerk III; 2 - Administrative Technician I

SOFTWARE

Microsoft Works V1.1	2
Microsoft Multiplan V3.0	4
Microsoft Word V3.01	8
Lotus 1-2-3	5
IBM PC LAN Program	3
Harvard Graphics	1
Microsoft Excel V1.04	1

ATTACHMENT 10

PERSONNEL SKILLS INVENTORY

	STAFF PROFICIENT
REPORTS MANAGEMENT DIVISION (CONT.)	
SOFTWARE	
Macintosh Hypercard V1.1	1
SAS	4
COBOL	2
Info-Access (electronic mail)	5
HARDWARE	
On-Line ETC (mainframe word processing program)	7
IBM-PC XT/AT	12
Macintosh II	2
IBM 4381-14 application users	14
SOFTWARE SUPPORT DIVISION	
# OF PERSONNEL = 6 (1 - Division Director; 1 - Systems Analyst III; 3 - Systems Analyst II; 1 - ADP Programmer II)	
SOFTWARE	
Turbo Pascal	1
WordStar Professional	2
DOS 3.2	3
MicroSoft Word	1
SuperCalc IV	1
MVS/370	6
JES2	6
VTAM	6
TSO/E	6
ISPF	6
ROSCOE	6
IBM/370 JCL	6
IBM/370 ASSEMBLER	6
COBOL	6
PL/I	4
SAS	6
IDEAL	1
DB2/SQL	2
HARDWARE	
IBM-PC XT/AT	3
IBM 4381-14	5

ATTACHMENT 10

PERSONNEL SKILLS INVENTORY

MAINFRAME APPLICATIONS SYSTEMS

OF PERSONNEL = 28 (1 - Division Director; 2 - Systems Analyst III; 2 - Program Analyst II; 9 - Program Analyst I; 9 - ADP Programmer II; 4 - ADP Programmer I; 1 - ADP Programmer Apprentice)

SOFTWARE	STAFF PROFICIENT
COBOL	22
SAS	17
IDEAL	23
TOTAL DBMS	7
MODEL 204	19
GES	11
GMS	8
ROSCOE	22
LIBRARIAN	22
QMF	11
DB2/SQL	15
ETC	12
MVS/JCL	21
TSO	6
IBM/370 ASSEMBLER	5
PL-1	2
SYS2000	1
CMS	2
PROFS	1
MARK IV	3
ISPF	2
FORTRAN	4
FDL	1
WYLBUR	1
PASCAL	1
LISP	1
SPSS	1
MicroSoft Word	7
R Base	2
Lotus 1-2-3	6
MultiPlan	2
MS-DOS	15
WordStar	3
PC 32700 Emulation	1
DBaseIII	2
MacDraw	2
MacDraft	2
WordPerfect	1
BASIC	2
C	1

ATTACHMENT 10

PERSONNEL SKILLS INVENTORY

	STAFF PROFICIENT
MAINFRAME APPLICATIONS SYSTEMS (CONT.)	
HARDWARE	
PC/XT/AT/LAPTOP	17
Macintosh	8
IBM PS2	1
IBM 4381-14	23
COMPUTER OPERATIONS	

OF PERSONNEL - 25 (1 - Division Director; 2 - ADP Supervisor IV; 1 - ADP Supervisor III; 1 - Systems Analyst I; 1 - ADP Equipment Operator IV; 1 - Clerical Supervisor IV; 1 - Key Entry Supervisor II; 2 - ADP Equipment Operator III; 1 - ADP Equipment Operator II; 2 - ADP Record Count Clerk III; 3 - ADP Equipment Operator II; 8 - Key Entry Operator III; 1 - Administrative Technician I)

SOFTWARE	
Basic 3.2	1
CICS	6
COBOL	1
Fortran	1
JCL	3
JES II	6
Key Entry - CADE	12
Lotus 1	1
Lotus 2	1
MVS/SP	6
RPF Programming Language	3
ROSCOE	5
Tape Management System	6
TSO	2
HARDWARE	
1900 CADE	12
IBM 4381-14	6
8700 Printer Reloading	6
Networking	2

ATTACHMENT 10

PERSONNEL SKILLS INVENTORY

	STAFF PROFICIENT
INFORMATION CENTER	
# OF PERSONNEL = 15 (1 - Division Director; 4 - Systems Analyst III; 4 - Program Analyst I; 2 - Systems Analyst I; 1 - ADP Programmer II; 3 - Administrative Technician III)	
SOFTWARE	
PC/MS DOS	10
IBM LAN & NetBios	5
IBM LAN & Support Program	5
IBM PC Network	3
Microsoft Word	10
Word Proof	2
Microsoft Multiplan	3
Lotus 1-2-3	8
Microrim R:Base	5
Harvard Graphics	2
Microsoft Chart	2
Microstuf Crosstalk	3
Info-Access	3
BASIC	1
IBM 3270 Emulation	3
IBM GDDM-PCLK	2
Quantum Access (State Education Encyclopedia)	4
SAS-PC	2
Norton's Utilities	3
Orgplus	1
Pagemaker	2
MVS/370	1
JES2	1
VTAM	1
TSO/E	2
ISPF	2
ROSCOE	4
IBM/370 JCL	4
IBM/370 Assembler	1
COBOL	4
SAS	4
IDEAL	1
DB2/SQL	3
QMF	3
Model 204	2
ETC	2
ROSCOE RPF	2
CICS	2
GES	2

ATTACHMENT 10

PERSONNEL SKILLS INVENTORY

	STAFF PROFICIENT
INFORMATION CENTER (CONT.)	
HARDWARE	
IBM PC, XT, AT, AND compatibles	10
IBM Convertible laptop	6
IBM PS/2	4
HP LaserJet printer	6
IBM Proprinter	8
IBM Quietwriter	5
IBM 5218 printer	1
Diablo 630 & 635 printer	2
1200/2400 baud modem	4
CD ROM disk player	4
IBM Token Ring Network hardware	6
IBM 4341-14	5
Color Jet Printer	1
RESOURCE PLANNING	
# OF PERSONNEL = 10 (1 - Director of Special Programs; 1 - Planner III; 1 - Planner II; 2 - System Analyst II; 1 - Education Research Specialist II; 2 - Planning Assistant; 1 - Administrative Secretary; 1 - Administrative Technician I)	
SOFTWARE	
ROSCOE	8
SAS	8
SAS/FSP	4
DB2	5
QMF	5
Excel	8
Microsoft Word	11
Maclink	4
Draw	4
Hypercard	1
Lotus 1-2-3	4
Multiplan	2
R-Base	2
HARDWARE	
IBM-PC XT/AT	8
Macintosh	6
IBM 4381-14	8

ATTACHMENT 10

PERSONNEL SKILLS INVENTORY

PEIMS DIVISION

OF PERSONNEL = 14 (1 - Division Director; 1 - Program Analyst II; 2 - Systems Analyst III; 6 - System Analyst II; 1 - System Analyst I; 1 - Technical Writer; 1 - Administrative Secretary; 1 - Administrative Technician I)

SOFTWARE

	STAFF PROFICIENT
PC3270	2
COBOL	5
QMF	3
TOTAL	2
M204	2
GES	2
GMS	2
SQL	3
JCL	3
ROSCOE	6
LIBRARIAN	3
RBASE	6
MULTIPLAN	3
MACDRAW	2
MACDRAFT	1
LOTUS 1-2-3 V2.01	3
dBase III V2.01	3
DOS 3.21	6
IBM PC LAN Program	1
NORTON Utilities	4
Brief Editor	1
Lotus Graphwriter	1
Sidekick	2
Cambridge Spreadsheet Analyst	1
Sideways	1
Fixed Disk Organizer	1
Microsoft Word	12
3270 Emulation	1
GDDM-PCLK	1
Paradox	1
BASICA	2
Pathminder	1
Corefast	1
Foxbase	1
Multimate	1
Crosstalk	2

ATTACHMENT 10

PERSONNEL SKILLS INVENTORY

PEIMS DIVISION (CONT.)

	STAFF PROFICIENT
SOFTWARE	
Think Tank	1
Ready	1
PC Fullbak	1
SAS	4
SPSS	1
Word Perfect	1
SPSS.X	1
Electronic Mail Service	3
INGRES	1
Turbo Pascal	1
PASCAL	1
C	1
LISD	1
FORTRAN	2
Wordstar Pro	1
Kermit	1
Microsoft Quick BASIC	2
HARDWARE	
PC AT/XT	13
IBM PS/2	4
MAC	2
IBM 4381	7

COMPLIANCE STATEMENT

TITLE VI, CIVIL RIGHTS ACT OF 1964; THE MODIFIED COURT ORDER, CIVIL ACTION 5281, FEDERAL DISTRICT COURT, EASTERN DISTRICT OF TEXAS, TYLER DIVISION

Reviews of local education agencies pertaining to compliance with Title VI Civil Rights Act of 1964 and with specific requirements of the Modified Court Order, Civil Action No. 5281, Federal District Court, Eastern District of Texas, Tyler Division are conducted periodically by staff representatives of the Texas Education Agency. These reviews cover at least the following policies and practices:

(1) acceptance policies on student transfers from other school districts;

(2) operation of school bus routes or runs on a non-segregated basis;

(3) nondiscrimination in extracurricular activities and the use of school facilities;

(4) nondiscriminatory practices in the hiring, assigning, promoting, paying, demoting, reassigning, or dismissing of faculty and staff members who work with children;

(5) enrollment and assignment of students without discrimination on the basis of race, color, or national origin;

(6) nondiscriminatory practices relating to the use of a student's first language; and

(7) evidence of published procedures for hearing complaints and grievances.

In addition to conducting reviews, the Texas Education Agency staff representatives check complaints of discrimination made by a citizen or citizens residing in a school district where it is alleged discriminatory practices have occurred or are occurring.

Where a violation of Title VI of the Civil Rights Act is found, the findings are reported to the Office for Civil Rights, U.S. Department of Education.

If there is a direct violation of the Court Order in Civil Action No. 5281 that cannot be cleared through negotiation, the sanctions required by the Court Order are applied.

TITLE VII, CIVIL RIGHTS ACT OF 1964; EXECUTIVE ORDERS 11246 AND 11375; TITLE IX, 1972 EDUCATION AMENDMENTS; REHABILITATION ACT OF 1973 AS AMENDED; 1974 AMENDMENTS TO THE WAGE-HOUR LAW EXPANDING THE AGE DISCRIMINATION IN EMPLOYMENT ACT OF 1967; AND VIETNAM ERA VETERANS READJUSTMENT ASSISTANCE ACT OF 1972 AS AMENDED IN 1974.

It is the policy of the Texas Education Agency to comply fully with the nondiscrimination provisions of all federal and state laws and regulations by assuring that no person shall be excluded from consideration for recruitment, selection, appointment, training, promotion, retention, or any other personnel action, or be denied any benefits or participation in any programs or activities which it operates on the grounds of race, religion, color, national origin, sex, handicap, age, or veteran status (except where age, sex, or handicap constitute a bona fide occupational qualification necessary to proper and efficient administration). The Texas Education Agency makes positive efforts to employ and advance in employment all protected groups.

TEXAS EDUCATION AGENCY
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